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I.—ON ACTIVE ATTENTION.

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My object in this paper is naturally not to attempt a complete treatment of its topic. I was led to write it because, in endeavouring to make clear the essence of volition, I found myself embarrassed constantly by the claims of attention. And rightly or wrongly I resolved to remove beforehand this recurring obstacle. I am therefore going to try, so far as I can, first to fix the meaning of active attention in accordance with the ordinary usage of language, and next to deal with a certain number of questions concerning it. That the usage of language to some extent varies I readily admit, but this variation is on the whole, I think, consistent with one central meaning. And in psychology to employ words in a sense opposed to their everyday signification is surely most ill-advised. It is difficult to suppose that the established use has no reason behind it. It is hard to imagine that the reader and the writer could ever wholly free their minds from the influence of association even if that were irrational. And in short, if we cannot employ terms in something like their ordinary sense, it is better to make new ones than to abuse and pervert the old. In the case of attention the abuse has even been carried to such a point that attention has been used to include and cover what every one does and must call a state of inattention. Such an attempt must naturally be short-lived, and we need not trouble ourselves to discuss it. It will repay us better to ask what is the ordinary meaning of our term and what

that meaning implies. In this article I shall take attention always (unless the reader is warned) in the sense of *active attending*.¹ And I do not mean by this merely a state in which in some sense we may be said both to be active and to attend. I mean by it a state in which the attention itself is involved in and follows from an agency on our part.

I will at once proceed to consider the facts in the light of ordinary language. If I am sitting at ease with my mind not dwelling, as we say, on any subject, but wandering aimlessly as I regard some well-known scene, I am what every one would call inattentive generally. If we keep to ordinary language I am not attending here to anything at all. I am occupied by no one object, and even that mode of sensation and feeling which may be said to predominate, is both diffused and feeble. Let us suppose now that a sudden and acute pain shoots through me, or that without warning a gun is fired close by, my state at once is altered. These things at once occupy me—there is no doubt of that—but am I to be said at once therefore to attend to them? If we use attention strictly for *active* attention we are unable to say this unconditionally. My state becomes attention if I go about consciously to get rid of my pain, or again if I begin to wonder what it is; and the same thing holds, of course with a difference, in the case of my hearing the shot. And I naturally and probably under the conditions do so go on to attend. But suppose that at once, recognising the sound as the report of a gun, I throw myself flat on the ground, have we, with merely so much as that, got active attention? I should deny this, and I should deny it again even if my act has proceeded from the idea of escaping danger and has thus been a real volition.² For attention in the first place, if we follow the usage of language, must have an object, and in the second place it must involve some dwelling on and maintenance of that object, and so by consequence some delay. If an animal hearing a sound pricks

¹ In this and in some other points I am departing to some extent (it seems not worth while to ask in detail how much) from an article in *MIND*, No. 43, 1886. I must beg the reader also not to forget that throughout the present article I am assuming that volition consists in the self-realisation of an idea. There is obviously no space in which to discuss this question here. I may refer the reader provisionally to *MIND*, No. 49, and again to *MIND*, N.S., No. 40. But I propose to deal with the question in future articles.

² For the justification of this see the references given above. The arbitrary limitation of volition to acts of choice is in my view quite indefensible.

its ears and springs at once, and, as we say, by one action, we should not call that attending. But if it pricks its ears and then pauses, we at least perhaps have got attention. There must in brief be an object and its maintenance, and hence we must proceed to inquire about the meaning of these terms.

The mere having of an object or objects is by itself not attention. If I am sitting listlessly, as described above, it cannot be said that I perceive no object. For I certainly have objects before me though I attend to none of them. There may even be some prominent object in my visual field, or there may be some predominant object of hearing, such as the sound of a machine, and yet I need attend actively to neither. And I may be assailed by ideas which are certainly objects, and which maintain themselves as we say even actively, and yet I need not attend to them. I may succeed in not attending to them if and so far as, whenever they recur, I do nothing to maintain them but turn instinctively to something different. Thus to treat attention as the state generally where I have an object would be at least to come into collision with language. I do not attend by the mere perception or thought of an object. I begin to attend when in a further sense I go on to make this my object.

To attend in the proper sense I must by my action support and maintain an object in myself, but we have attention only so far as I maintain it theoretically or at least perceptively. Attention alters something, that is clear, and it is so far practical, but in the sense of altering the existence of the object it is not practical at all. If I turn a handle and so keep up a sound, that by itself is not attention and it need not even in any way imply it. If I turn the screw of a microscope, my act is not in itself attending, and it need not involve attention to the object, though in most cases in fact it does so. If again I move my eyes or my hands and so gain knowledge about an object, that action in the first place need not involve attention. And in any case, so far as I alter the actual thing, that alteration will fall outside of the attention itself. So far as in general my act can be said to create the existence of the object, we have so far not got attention at all. My act is attention only so far as it supports and maintains the ideal presence of the object in my perception. Thus attention is practical but it is not practical except as altering myself, and as so causing the object, unaltered by me, to maintain and to develop itself before me and in me.

In more familiar language we may say that my end in

attention¹ is to maintain an object before me with a view to gain knowledge about it. My aim is thus to develop the object ideally for me as it is in itself, and so to know it. But in saying this we must be on our guard against a possible error, and we must not confine knowledge to a purely intellectual cognition. For clearly I may attend to a beautiful object while I may not be seeking theoretically to understand and comprehend it. I may desire merely in a wide sense to apprehend the object, as when for instance I listen attentively to an air, or with attention observe the development of some pleasure or pain in myself.² The process in both cases is in a wide sense theoretical or ideal, because there is an object in it to which the whole process is referred as an adjective. The object preserves for me its identity and unity and develops itself in the process before me as an individual whole, a whole in which the beginning is qualified by the end, and where on the other hand my act does not make the object to be other than it is. Any such process must deserve the title of ideal or theoretical knowledge, if that is taken in a wide sense, and we need not go on to inquire here how it is related to understanding and truth and to a more strictly intellectual mode of cognition.

It may be objected here that in attention more is really done than to develop the object ideally. The object (it may be said) is always made more prominent and is strengthened by the process, and attention therefore alters the object as well as maintains it. To this I reply that I will ask later whether in attention the object is actually strengthened, and

¹ More accurately 'my end so far as attention is concerned'. My main end may be practical and may seek to alter the thing itself, and the ideal development of the thing in me may be a mere means involved in and consequent on this. See more below.

² So far as the pleasure or pain coming from an object qualifies as an adjective this object for me—or again is taken as an adjective qualifying my self—I can of course attend to it. Otherwise and if the object merely gives pleasure, I can of course attend to the object but so far not to the pleasure or pain, since that is so far not 'objective'. Even if (to pass to another point) an object remains unaltered and does not change when maintained by attention, we may still properly call this permanence the ideal development of the object. The object preserves its ideal identity through the process of time and the change of context, and qualifies itself by that process. When Dr. Stout (*Manual*, p. 65; ed. 2, p. 71) makes attention aim at "the fuller presentation of an object," I quite agree with him, if, that is, I may interpret "presentation" in the sense of my text. I am not sure however that lower down in the same paragraph Dr. Stout does not teach a divergent doctrine. On the subject of attention I am indeed forced in some respects to dissent very strongly from some doctrines that have been urged by Dr. Stout, but I need not enter on that here.

if so in what sense. But any such strengthening, even if it exists always in fact, is none the less, I would urge, accidental. It is an alteration of the object's psychical existence which falls outside the character of attention itself, and is as external to it as are again its physical effects. The only change in psychical existence which really belongs to the essence of attention is the maintenance in and for perception of the object itself. And the object itself though developed by the process cannot be taken as changed by it. And, if it is altered otherwise, its alteration must be regarded as accidental.

Attention is thus negative of any mere psychical interference with the object and its knowledge in me. And it might be said that attention therefore is directed not at all upon the object but simply on myself. The essence of the process (it may be urged) is not to maintain the ideal development of the object, but merely to keep open my self to its appearance in me. Attention will thus consist in the suppression of any psychical fact which would interfere with the object, and its essence therefore is not positive at all, but merely negative. But any such view, though it perhaps might not take us wrong in practice, is really one-sided and in the end inconsistent with itself. And a true doctrine about the general nature of negation would assure us that any such view is false in principle. You cannot, in short, anywhere or in any way negate except from a positive basis. And you cannot suppress in particular whatever is to interfere with a special positive development, unless you have some idea as to what that development is and keep its requirements in mind. But, if so, the process can be seen at once to be more than barely negative. If, in making attention to consist essentially in a mere alteration of yourself, you do not include in that alteration the end and object for which it is made, you clearly have not defined attention nor have you said what you must really have meant. But otherwise you have qualified the process essentially by the positive development of the object. The real development in an ideal form of the real object itself is in fact the positive end¹ which against hindrance is pursued in attention. Our scruples or our prejudices may not allow us to accept what I will call this evident doctrine. But if so we have preferred to make the general fact of knowledge and truth, I do not say inexplicable, but impossible. The merely

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of other facts.*

¹ Where not itself the direct end it is included in the end as means and is so the indirect end.

negative character of attention would rest in short upon a superficial error.

Attention implies (we have seen) the ideal presence of an object, but it is not confined, we must remember, to thought in the narrower sense of that term. In what we call pure thought the object is not merely in some way developed without loss of identity, but it must itself seem to develop itself by a movement which, if not intrinsic, is at least ideal. On the other hand attention and knowledge are obviously not limited to this. For their result may come from observation and it may be given by sense-experience, and it may depend upon matter of fact without us or within us. At the same time we saw that an ideal synthesis is involved in attention, and the process may therefore be certainly said in a sense to involve thought. When I attend to a sequence of mere fact external or internal, there must be for me in the process a unity which is not merely given but is ideal. There is a single object which is qualified as a whole and at once by the series, and such a qualification cannot be merely given as a succession of facts. If we use in a wide sense the terms thought and idea, attention always, we must say, in this sense involves thinking, and it involves a knowledge the essential nature of which is to be held together by an idea.

But attention in the sense of *active* attention means more than any kind of mere knowledge. It implies (as we have seen) also a volition on my part, and we may with advantage once more here consider the actual facts. Suppose that I am sitting either listless or absorbed,¹ and that I see perhaps a rabbit move or a bird fly across the scene, do I necessarily give them my attention? If again I passively, as we say, accept the current and course of my own thoughts, must I be said also in every case to be actively attending to them? If we follow the usages of language I think we must deny this.² We cannot hold that in every such case my active

¹ These states are very far of course from being the same, and it would be a serious mistake for some purposes to confuse them. I think that they have been so confused with a bad result in connexion with the words *distract* and *distract*ion.

² My attitude towards the perceived activity of my own thoughts may in fact be often felt as disagreeably passive and as anything but active. There are statements made on this point which I read with astonishment. And to urge here that a feeling of my passivity must to some extent imply a feeling of my activity would in my opinion be indefensible, at least apart from an inquiry into the meaning of these terms. We want on this whole subject, I will venture to add, less prejudice and dogma and more inquiry, and I believe that in time we shall get it. The appearance of Mr. Loveday's interesting article, since these words were written, has tended to confirm this belief. See *MIND*, N.S., No. 40.

attention must have been present, when nothing (as we should say) has excited and arrested it. Something necessary to make attention has been wanting, and that something is certainly not here the ideal identity of the object. For this may have been present, and may have been present even in a purely logical form, and yet attention itself may have been absent. And thus the reason why I have not actively attended cannot be that I have not thought. The reason is that I have not done anything myself to support and to maintain the object. There have been from time to time objects each with an identity and an ideal development however short, but I on my part have done nothing at all towards actively developing them. The idea of the object was in short really not 'my idea'. It did not go before and itself, directly or by implication, prescribe and bring about its own existence in me. There was in other words no will, and without my willing I do not actively attend. Even where, as in pure thought, an idea develops itself theoretically, we have not got will unless the foregoing idea of that development has itself been thus the cause of its own existence.¹ And where this feature is absent we assuredly have no active attention. In every observation and in all experiencing, if it is indeed actively attentive, we have, in however vague a form, the idea of my perceiving that which is to happen to the object, or we have at least an end which involves as means the ideal development of the object, an end which

¹ Cf. here MIND, No. 49, pp. 25-26. It may indeed be contended that *all* thinking does in the end imply will in this sense. Without pausing to discuss this view I will state in passing that I certainly cannot accept it. Of course, to pass to another point, I should agree that at first in the main the moving ideas in will are practical. The idea of myself, for instance, catching a beast causes me under certain conditions to keep still and to watch the movements of the object. And it can be argued that in the end every theoretical interest is thus ultimately practical. I cannot discuss such a large matter in passing, but I do not think that such a contention in its crude form is defensible. It is one thing to hold that no theoretical or æsthetic interest is in the end barely theoretical or æsthetic. It is quite another thing to propose to subordinate such interests to what is barely practical, without even asking whether a mere practical interest is not itself also in the end incomplete.

Since writing the above I have had the advantage of reading Prof. Royce's interesting book, *The World and the Individual*. I hope that at some future time I may be able to discuss the doctrine there advocated with regard to the internal meaning and purpose contained in all ideas. As I understand this view, I however find myself unable to accept it. I cannot see how in the end and ultimately it is an idea which makes the selection which takes place in knowledge, and I have not succeeded in apprehending clearly the relation of thought to will as it is conceived by Prof. Royce. I hope however to profit by further study of this volume.

is felt in that development to be carrying itself out. And this idea of end operates in determining the process in which itself ceases to be a mere idea and becomes actual fact. Active attention in short everywhere implies volition.¹

But in what sense (this is now the question) does active attention imply will? We must here on each side be on our guard against error. In the first place attention is not the same thing as will. We have noticed already that in its absence volition may be present, and I shall hereafter return to this point. I shall therefore dismiss it here and ask how attention, itself not being will, implies will in its essence. I will begin by dealing with a mistake of a different kind. Attention certainly does not imply volition in the sense that all attention is willed directly. The attention itself is not always the aim of my will. It may or it may not be itself my end, according to the circumstances of the case, and the facts, as soon as we look at them, seem to put this beyond doubt. I may often of course have an idea of attending to this or that, and so go on to attend to it, but no one could say that apart from this there is no active attention. For, in carrying out some purpose without me or within me, I may be undoubtedly attending, and yet, having felt no tendency to wander mentally from my aim, I may as undoubtedly never have directly willed to attend. In short attention is a state which may itself be willed directly, but which certainly need not be so, and which far more usually is not so willed. Its essence is not to be itself an end and object of volition, and it is enough that it should be implied in an end and object which as a state of mind it subserves.

Wherever an end, external or internal, practical or theoretical,² involves in and for its realisation the maintenance and support of an ideal object before me and in me,—that is active attention. If I will to capture an animal, this purpose may imply the keeping of its movements, and perhaps also my own, steadily before me. If I mean to solve a problem, the idea of its solution entails my dwelling theoretically on the means. If I see and desire to go on seeing some show, that idea in carrying itself out involves my abstinence from distracting movements and thoughts, and it involves positively the keeping my eyes and mind open to the continuous perception of the object. In all these cases the attention comes

¹ The doctrine of an attention contrary to will, which is advocated by, for instance, Mr. Shand, in *MIND*, N.S., 16, p. 452, seems to me quite indefensible, if at least attention is to mean active attention.

² These distinctions, the reader should remember, are not the same.

from my will¹ and it is active attention, but you cannot say that the attending itself is itself that end which I willed. But it becomes this end, and it is this end, where the delay and the hindrance to the realisation of my idea is apprehended as in some way consisting in my failing and distraction. The attention itself then goes on to be included explicitly in my idea of the end, and the state of attending is now itself directly willed, and not as before implied incidentally and even conditionally.

Active attention, we may say roughly, is the dwelling ideally on an object so as to do something practical or theoretical to that object or with regard to it. But this dwelling is certainly not always itself included in the idea of my end, it is certainly not always itself the direct aim of my will. If you take a state such as observation and active expectancy,² that state will without doubt always include attention, but it will not include in every case the will so to attend. My immediate end here is to get to know more about the object, to realise it ideally, with or without a further end theoretical or practical. In this direct end is implied the adoption of the necessary means, in other words here my keeping the object before my mind and my assisting it to develop itself in me. But this assistance of mine is not in every case itself specifically willed. It is not itself directly willed except where

¹ The reader will not forget that for me there is no will at all without an idea, and that volition is essentially the self-realisation of an idea. Dr. Stout (*Manual*, pp. 248-251; ed. 2, p. 258) holds that we may have attention and even search without an idea of the object. I cannot agree that in any such case we have a right to speak of active attention, and if I agreed to this I can see then no reason why I should not descend even lower, and speak of attention being present even there where there is perhaps not even so much as perception. The pathological case, as Dr. Stout reports it, does not seem to me to show that the subject had in each case no idea (in fact I think it shows the contrary), but merely that his ideas were exceedingly vague and exceedingly restricted. But, if the opposite could in some way be shown, I should without the least hesitation refuse to admit the presence of either mental search or active attention in such a case.

² The assertion that all expectation implies will is in my opinion indefensible. What we call active expectancy and a sustained attitude towards the future does certainly imply will, but expectation is used also, I should have said, with a wider meaning in which no will is implied. Expectation certainly need not always involve what we call observation. A mere suggestion as to the future or an anticipation of it on which I do not dwell, and again even a judgment about the future need, I should say, none of them imply attention or will, and they clearly need not involve desire. Expectation, as containing essentially attention and a will to know, is used, in short, in a sense which is artificially narrowed (cf. *MIND*, No. 49, p. 16). I have already mentioned that I cannot accept the doctrine that all interest is practical.

its absence, actual or possible, has been brought before me. The delay or the failure in the realisation of my object is one thing, and my failure in respect of this is another thing, and it is only the second of these which calls forth a direct will to attend.

Force | Active attention may therefore be defined as such a theoretic or perceptive occupancy of myself by an object as is due to and involved in a volition of some sort directed on that object. The ideal development of the object in me is thus, directly or indirectly, the realisation of my will. And whatever psychical support, positive or negative, is required to maintain this development, issues therefore from my will and must be regarded as my work. Wherever on the other hand an ideal content is so interesting in itself as of itself to produce, apart from my will, whatever is required for its own psychical maintenance, that maintenance is not active attention and cannot be taken as the work of myself.

The meaning so far given to active attention will, I think, be found in the main to agree with the ordinary employment of that term. The various divergent senses, in which we commonly make use of attention, will be seen by us to waver naturally and pass one into the other. And that sense, which in the above account I have tried to fix and define, hits, I venture to think, the point amid these variations which may be called their centre. In our ordinary use the chief divergence is between active and passive attention. The latter seems equivalent to what may be called the mere occupancy of myself.¹ A sensation or a feeling or an idea, if these are

¹It would be a reasonable proposal to limit this wide use of passive attention, and to apply the term only in cases where I am occupied by an object before me. The fact that my organs and my mind are given a certain 'direction' towards an object, may perhaps be taken as implied in the ordinary use of attention. To such a limitation I should not be averse, so long as two points were kept clear. (i.) In the first place the aspect of exclusive domination is (we must remember) quite essential, and this aspect is not contained in the mere fact that my mind possesses an object. We have seen that, where I have a variety of objects before me, I may be inattentive to some of them or even to all. (ii.) In the second place, even where an object occupies me and so I passively attend to it, if its control over my mind comes from the activity of the object itself, this control is not my work and there is no active attending. Now these two essential features, first of domination and next of maintenance by my activity, will tend, I fear, to be obscured by the proposed limitation of passive attention. For always in having an object before me my mind naturally may be said in a sense to be 'active,' and, if so, this mental state naturally will tend to be called active attention. And it will be called so where my mental state could not be fairly taken as my own work, and it will be called so even where we have not the domination

sufficiently strong or sufficiently influential, may be said to dominate me or engross me, or also perhaps again to move me, in an eminent sense. Attention here, it will be seen, may be intelligent but is not so essentially, and if, following this line, we make active attention to be the willed procurement of such an occupancy or domination, the element of intelligence, of ideal dwelling on the object, if present is once more not essential. The article which some years ago I published (*MIND*, No. 43) did in fact follow this line, and in the sense which it gave to active attention it to some extent conflicts with the account I now offer. And this is a point which perhaps we must be content to decide arbitrarily, in whichever way we decide it. But with regard to attention which is not active on the part of myself but consists in my domination or passive occupancy, the account which I have given above does not exclude such a meaning. Whether in psychology we are to use attention in this sense I do not attempt to decide, but I am sure that it is a sense the existence of which we cannot afford to forget. Where an idea extrudes others and dominates me simply and so produces volition, my attention to the idea evidently will so far be but passive. Where after the advent of a sensation or a perception I act at once and without delay, my attention, so far as it exists, once more is passive. The action itself certainly is not an attending, and the action may even be not psychical and only physical. And we must decide in the same way where a sensation is, as we say, 'apperceived,' and is modified by the activity of what we call a 'disposition'. This will not be my active attending unless I can be said as a result of my will to maintain and to dwell ideally on the object. Activity is present, if you like, and this activity again may be said, if you please, to cause in a certain sense attention to the object. But the attention once again, so far as it exists, will itself be but passive, and the activity, to whatever subject I refer it, will most certainly not be active attention employed by my self.¹ For we do not have that until, as we have seen, we have an idea and a volition.

I will now go on to show briefly how the main senses of attention pass naturally one into the other. If we begin

which is involved in passive attention. Hence, in the presence of this misleading tendency with all the confusion which it entails, I think it safer to take the line which is followed in the text. But the limitation, I agree, would keep us nearer to everyday usage.

¹ I shall touch on this subject again lower down, and in the meantime may remind the reader that the activity here and the subject of it is taken by some psychologists to be simply physical.

with attention in the low and perhaps improper sense of psychical domination or occupancy, such a psychical fact must normally tend to become the object of a perception. And a prominent object of perception, even apart from its practical side, must tend naturally to become a thing to which I actively attend. It will probably, if it lasts, be dealt with in some volition theoretically or practically, and this will tend to imply a dwelling on it more or less directly, and an ideal maintenance and support thus proceeding from myself. For the suppression of conditions in myself hostile to the undisturbed presence of the idea seems involved in its continuance and development before me. And this suppression, we have supposed, will arise, not directly from the object itself, but at least in part from that object as a means to and as included in my end.¹ And with this we clearly have arrived at an active attending. And such attention tends to pass further into the attention which is itself the end and object of will. For so far as there is mental wandering the original purpose will tend to be frustrated, and hence the remedy of that frustration, if the purpose holds, will normally be suggested as a fresh idea. And this idea realising itself is itself in general my will to be attentive actively. I do not think that any account of attention, which differs materially from the above, will be able in the same way fairly to do justice to the facts alike of language and of experience.

Active attention is not the same as thought or will, but in its essence it implies each, and it therefore possesses the characteristics of both while identical with neither. I will proceed at the cost of some repetition to enlarge on this thesis, using thought as before in a wide sense so as to cover the entire theoretical attitude.

(i) In the first place attention is not wholly identical with thought, and thought can certainly exist without active attention. Even if thought implied attention, the attention itself would be but one aspect of the thought, for the attention itself does not qualify the object. But it is not even

¹ It may be asked whether that ideal development of the object which is a means to my end may not in itself become so interesting as of itself to engross me, and whether in this case we any longer have active attention. Any difficulty in answering this question arises, I think, from the difficulty of making in fact the abstraction required. So long as and so far as we take the end to remain dominant and controlling, we must speak, I should say, of an active attention. For, so long and so far, the repression of competing psychical factors is taken as coming, not from the mere idea itself, but from the end willed by me.

true that all thought implies active attention, and it cannot be said that in all thought I actively maintain and support an ideal object. There must certainly in thought be on the positive side an ideal continuity, and on the negative side an absence of psychical interference. But no one would say naturally that in all cases I actively procure this result. We might perhaps as naturally say that in all thought I am passive, while the object itself actively produces the result in me. But neither of these extremes would really be tenable.

(a) Let us consider first what happens when, as we say, my thought is concentrated and I am fully absorbed in it. Let us take the case of an intense intellectual or æsthetic activity, where the object seems to develop itself before us without help or hindrance. If you insist that here in all cases and throughout I myself am actively attending, I would ask you what it is that I myself am doing with or to the object or myself. And for myself I cannot find that I at least am *always* actively attending. For so far as the ideal development of the object is interesting in itself, the psychical control over my mind is naturally taken to proceed not from myself but direct from the object. (b) Let us examine next my state where, as we should say, I am inattentive altogether. Can we assert that in such a case there actually is no thought at all? My mind is wandering doubtless, and there is no one single object which emerges from the general background and develops itself ideally throughout. But are there no passing objects here that develop themselves ideally before me even for a moment and to the very slightest extent? I cannot myself see how in the face of facts such a view could be sustained. (c) Where I am not (as we say) generally inattentive, but am occupied by, and am perhaps also actively attending to, one continuous central train of thought, is there outside of this central train not any recognition and judgment? It would be, I think, difficult to deny wholly the existence of such thoughts, however passing and sporadic, and yet, if we cannot, then apart from or outside of our active attending we shall once more probably have found thought, and shall certainly have found at least the fact of 'objective reference'. We may in any case rest our conclusion on the two previous instances, if about the third we are inclined to doubt. Thought may certainly exist apart from active attention, and attention itself is not wholly identical with thought.

(ii.) Active attention (to pass to another point) is not the same as will, though it involves will in its essence. Will can undoubtedly exist in the absence of active attention, and, even

where that is present, will must still in a sense be superior to it and prior. (a) Let us first take the case where, without pausing to think about my suggested action, I act at once. We are to suppose that there is present here an idea of what I am about to do, for without such an idea we should certainly not have volition. But in the case supposed the idea realises itself forthwith without any further ideal development, and in such a case we have in the proper sense no attention. I certainly perceive an object, and that object may, as we say, violently strike me, and I may also be dominated and overpowered by the idea of my action on the object, but with all this, if I go on to act at once, I do not actively attend. My attention will under certain conditions, it is true, follow as a consequence, but it has so far had no time in which to develop itself, and so far in fact it is not there. (b) We may do well in this connexion to consider also the case where my attention is willed actually and as such. There is here a special will, a will, that is, to produce the state of attending. We have therefore present here the idea of myself attending, and this idea carrying itself out into existence is the special will to attend. But if any one maintained that this idea also itself must be actively attended to, he would be surely opposing himself to the evidence of fact. And, if we keep to the facts, we must admit here the presence of a will which is itself certainly not attention but which on the contrary conditions it. The idea of myself attending dominates me, and the idea so produces the existence of my attention, but clearly I do not at the same time actively attend to my idea. That would require a further idea and a further volition, and we should thus be driven to enter on a fruitless regress. We assuredly never should arrive at an idea at once the ultimate condition of my attention and itself ultimately attended to. But probably no one could hold with us that will is implied in active attention and that an idea is essential to will, and at the same time maintain that this idea itself must be an object of attention.¹ If then our premises are right we may conclude that attention and will differ, and that attention implies, while on the other hand it is not implied in volition. We must insist that without attention there may be will, and that where both are present both are not the same or even co-ordinate. Attention is an ap-

¹ If we believe that there is will and active attention without the presence of an idea, of course in that case the argument of the text does not apply; but I have already dismissed this doctrine. What in such a case the fact of, a will to will, really would mean I do not know, and it would be unprofitable for me to consider.

plied will, and it is therefore in this sense something clearly subordinate and lower.

(iii.) We have seen that attention¹ is not the same as either thought or volition. But on the other hand, since it implies these, it will possess the characteristics of both, and I will go on to enlarge for a space on this head. I shall not attempt to exhaust the subject or in discussing it to follow a strict order, but I will offer some remarks which perhaps may be useful.

(a) Attention, we have seen, involves thought, if thought is taken in the general sense of the perceptive or theoretical attitude. Attention has always in other words an object qualified in me by ideal adjectives. And this attitude implies on my part a certain passivity. In attention I must be passive first in the sense that I do not go about to alter the object but receive and accept it. And there is again beside this a further sense in which in attending I am passive. My self must more or less be occupied and affected by the object, and I (we may say) must suffer this object as mine and in me. And more or less clearly I must also feel and be aware of this sufferance. In fact a feeling of this sort, which is present always in active attention, may go some way towards obscuring there my sense of being active. I shall very soon return to this and shall point out something which this felt passivity implies, but for the moment I will pass on to notice another mark of attention.

(b) Attention, being will, must of course give us, beside the sense of passivity, a sense also of being active, though this sense again can under certain conditions be weakened. And, as will, attention involves naturally the more or less clear awareness of my active relation to the object of my attention. The practical attitude implies always within what is experienced the opposition of my self to the not-self, and I must also be aware of these terms and of their relation. The same thing holds with a difference in the theoretical attitude, for there the relation and its terms must again be experienced though not quite in the same sense.² I cannot properly attend without an experience of my self as passively affected and again as actively affecting. This awareness may be present of course in very various degrees of distinctness. It may be vague feeling or again it may be clear self-consciousness,³ but it never fails to be present.

¹ The reader, I hope, remembers that apart from a special warning he is to take attention as *active* attention.

² I cannot enter on this matter here.

³ I think that Mr. Shand is more or less exaggerating when (in *MIND*, N.S., 12, p. 459) he speaks of "a clear awareness" in all attention. The

I will before proceeding lay stress on a point which I have mentioned already. We have, I presume, undoubtedly a sense and an experience of being active and passive, and I mean by this that we have an actual awareness of our selves in both these characters. But unless both self and not-self and their relation are actually experienced—and I mean by this are present within the experienced as parts or aspects or features of its content—I cannot see how a sense of activity or passivity, in attention or in anything else, is to be either explicable or possible. To be aware of activity and passivity without being aware of that which is active or passive, and without this also entering itself into the content of the experienced, is to my mind in the end a thing quite without meaning.¹ Others perhaps may understand how this is possible or at least may know that it happens, but in this understanding or knowledge they fail to carry me with them. And in their dealing, so far as they can be said to deal, with this fact of experienced activity, too many psychologists excite in me an astonishment which does not end in admiration. There is doubtless here, as we are told, a familiar distinction. There is the activity of a thing which is aware that it is active, and there is again the activity of a thing which has no such feeling and experience. We all in this latter sense should speak of the activity of a volcano or of a pill, and in this latter sense we may also in psychology make use of the term 'active'. And I might claim, even myself, without any very prolonged struggle to have possessed myself of this distinction. But having perhaps risen so far there remains a point at which I am still left behind. I fail to perceive how this distinction, even when we have attained to it, can either rid us of the fact of experienced activity or can entitle us to treat such a fact with neglect. I still do not comprehend how the knowledge on our part of this distinction—I do not even see how even the ignorance of it on the part of others—can excuse us when we make apparently no attempt to find out what experienced activity contains. Such neglect still appears to me to be in short inexcusable, even though apparently its consequences with a little good will may conduct us to Theism.

In attention then I am practically related to an object, but this practical relation (I would once more repeat) is of a limited kind. Attention, being will, must involve the altera-

awareness certainly always is present, but in what sense and to what degree can it be always called "clear"?

¹ Compare here the remarks in *MIND*, N.S., No. 40.

tion of existence, but on the other side, as attention, it must not alter its object. The object, we have seen, is not changed by me but develops and reveals itself within me. What then is that existence of the object which really is changed by attention? It is, we answer, the psychical existence which belongs to the ideal development of the object. In all perceptive knowledge there are these two sides which are indissolubly united. And in active attention we have on one side the willed self-revelation of the reality in and for me, and on the other side the psychical existence and the alteration of that existence without which the object cannot appear.¹ In attention you cannot, as we have seen, leave out either of these factors. Attention does not merely consist in the alteration of my psychical existence, and again it cannot even by an abstraction be regarded merely as the ideal movement of the object.

It is for this latter reason that we are not said to attend to anything except what is 'presented'. Mr. Shand (*MIND*, N.S., 12, p. 467) has noticed this usage, which appears to be well marked, but he has not, I think, pointed out the principle and the reason which underlies it. But the reason is that, being will, attention, like all will,² must be directed on immediate existence. We cannot, as Mr. Shand remarks, properly attend to another man's thoughts or to what is happening at the antipodes. And yet obviously I can attend to an idea, say the idea of attention. I can attend to it so far as it is taken as an idea existing now in and for me, and is therefore in this sense 'presented'. But if on the other hand you abstract from this side of the idea, I can attend to it no longer. And in speaking of another man's thoughts or of an event at the antipodes, you are naturally

¹ I may perhaps once more be permitted to remind the reader of a vital point. That alteration of my psychical existence which is involved in the maintenance of the ideal development, must not, where we have active attention, come direct from the object itself. For, wherever this happens, it is the object which is taken to be active and not I myself, and naturally with this we can speak no longer of my actively attending. In active attention the ideal development issues from and is implied in my will, and its maintenance also is thus taken to be willed and to proceed from myself.

² Mr. Shand would, I understand, not admit this. He adduces (*MIND*, N.S., No. 16, p. 463) the fact of intention and resolve as a proof that will is not always an action on immediate existence. But except so far as intention and resolve are or imply such an action, I cannot agree that they are volition, and I think that when they are defined so as to exclude this aspect no one would call them will, or would call them anything beyond mere intention and mere resolve. I have touched on this subject in my *Appearance*, etc., p. 463, and I shall have to recur to it in a future article.

taken for the purpose in hand to abstract from the existence of these things in my knowledge. Hence you cannot attend to them, since it is of the essence of attention to imply this aspect of psychical existence and its alteration. Whether we can will an event outside of and quite apart from our psychical existence, as we certainly can desire it (*MIND*, 49, p. 21), I need not here discuss. But my willed attention to such an event is, as we have just explained, self-contradictory.

(c) I will now briefly indicate another feature which belongs to attention in its character of will. Attention may itself vary in strength, while its object either does not vary at all or becomes indifferently more or less.¹ In the first place I may be occupied and dominated more or less by an object, while that object, taken in itself, remains the same. The object may in a certain character and on a certain scale remain of the same degree, while the range and extent to which my self is involved and disturbed may change indefinitely. But that occupation and disturbance is of course not the same thing as my active attending. My attention will in the proper sense be strong or weak, exactly in the way in which we speak of volition possessing these characters. The strength of a volition is a topic to which in another article I hope to return, but it consists, we may say briefly, in the strength of the idea with which the self is identified and the amount of tension and struggle set up between this idea and existence. The extent up to which the whole self is involved in this idea and is excited by this conflict and is identified with one side of it, gives, I should say, the degree of volition. With this of course is connected the felt amount of pleasure and pain. On the other hand the experienced strain on an organ, unless so far as it is included in the above, does not count towards fixing the degree of the tension. And my passive occupancy by the object once again is not a factor, except so far as it subserves and increases the struggle. I do not think that I can with advantage here enlarge on this subject.

We have perceived the essential nature of active attention, and have surveyed its main features from the side alike of volition and of thought. I have now to deal with some other problems, and in particular will discuss the meaning of the phrase "object of attention". But first I will glance at a question about attention's effects. Are we to

¹ On the excessive ambiguity of a psychical 'more and less' see *MIND*, N.S., No. 13.

say that it does or that it does not intensify its object? I could not here enter at length into this controversy, even if I were qualified to do so, but I will venture in passing to offer some remarks. Very serious ambiguity attaches not only to "psychical intensity," but also, as we shall presently see, to attention's "object".¹ And without a previous inquiry into the meaning of these terms any discussion of the question, it seems to me, must in part lead to nothing. I should be inclined, if I might venture an opinion, to agree that attention does not *essentially* raise the strength of the object to which I attend, if and so long as this object is considered with reference to its own scale. If, that is, I am comparing one visual object with others, or even generally one psychical object with others, it is not of the essence of attention to raise in the scale one of these objects against another, so long as the scale enters into the whole object to which I really am attending. In other words so far as you attend to a whole field of comparison, your attention does not essentially strengthen one part of this connected whole as against other parts. And, if this conclusion seems trivial, I can only reply by asking that it may at least not be forgotten. On the other hand I should agree that in general the effect of attention is to strengthen and to make clear,² and hence it may in fact incidentally falsify for the purpose of comparison some part of the object. I will not attempt further to enter on this matter, but before proceeding will offer a necessary remark. Attention is not something abstract and general, but is always individual and special. It is, we have seen, in effect a will to develop perceptively an object in me. And with regard to the nature of objects and their ways of development the greatest diversity prevails. And hence the strength

¹ When Mr. Shand (*MIND*, N.S., No. 16, p. 464) says that, though attention does not arrest a disappearing sensation, will on its side may do so, I find the statement extremely ambiguous. If the will is simply to observe what happens within a certain field, the attention does not alter, or at least it ought not to alter, any one element in that complex. But on the other hand if the will is directed to an end which in itself involves a continued attention to some idea that naturally wavers—surely here the attention both can and often does arrest. From my point of view there would of course be no meaning in saying here that will can do that which attention cannot do. And so far as Mr. Shand understands by will an action that takes place without any idea of it, I radically dissent from any view of this kind. Mr. Shand's very interesting article is pervaded throughout by that ambiguity as to the nature of the "object" which I am shortly to discuss. With regard to attention strengthening and not strengthening, the reader will find some instructive hesitation in Wundt, *Phys. Psych.*, chap. xv.

² I cannot discuss here the meaning of 'clearness'.

and clearness which are essential to attention are not always one thing. They are in each case prescribed in amount and character by the particular matter and purpose. Whatever is enough to meet this particular demand will be sufficient, however little there may be of it, and only so much as this is really essential to attention. And a further end and purpose for which the attention exists, we must remember, is not the attention itself.

I will now proceed to an inquiry into the meaning of attention's 'object'. We can attend, as will presently be shown, to but one thing at a time. Except under certain abnormal conditions we may say that attention never really is divided, and before explaining this I will very briefly state why the fact must be so. There would be much more to say here if I had space at command, and I must content myself with giving what seems the main reason while ignoring other aspects of the matter. Attention is single, we may say in a word, because will is single. And will is single not in the least because it is a faculty—there is too much of this kind of 'explanation' still on hand—but, we may say, because, if it were not single, it would have perished with its owners. Without the habit, and so in the end the principle, of doing and attending to one thing at a time, no creature could have maintained its existence and its race. This, I would repeat, is not offered as being by itself the whole reason, but it seems enough to show why attention must normally be single. And with this I will pass on to inquire further about the 'object' of attention.

The object of attention, it will be said, is in fact very far from being single. And, it will be added, the object is so far from being one and not many, that authorities have differed and have even experimented about the extent of its plurality. And if the object really has all the time been one, this seems not possible. But it is more than possible, I reply, if the term 'object' is highly ambiguous, and if some psychologists have taken no account of its ambiguity. And I will forthwith state the main conclusions to which we shall be led. (1) There is in attention never more than one object, the several 'objects' being diverse aspects of or features within this. (2) Within the one object the unity is of very different kinds. (3) The nominal object and the real object may be very far from being the same, and the latter may contain within itself the former as a feature which is subordinated and even negated.

(1) The first of these heads I may pass over rapidly, since I can refer the reader here to the works of Prof. James and

Dr. Stout.¹ Apart from oscillation, and again apart from abnormal states, to attend to a plurality is always to attend to it as one object, and it is not possible to have really several objects of attention at once. The idea that we can do this comes from a want of insight into certain truths about the object, and I will at once, under (2) and (3), proceed to set these out. I would add that these truths have a wide and important bearing, and that any neglect of them can hardly fail to result in error.

(2 and 3) Attention, we all know, may in various degrees be diffused or be concentrated, but we may fail to perceive that this concentration and diffusion itself falls within the object and qualifies that. The extreme of diffused attention would be, I presume, to observe impartially the whole detail of a complex scene. Its aim would be to observe at large everything which happens in and to this general object, to notice in other words any and every kind of change which takes place before my mind. But even in this supposed extreme we should have the unity of my world, as perceived here and now, and we should have the idea of my noticing whatever may happen in this field; and thus every diversity would be comprehended in and would be subordinate to the unity of this general object. The plurality even here would be the adjective of one thing, but the various features of this object would be of precisely the same rank. They are thus taken as simply co-ordinate, and they are coupled, we may say, by a mere 'and'. 'We are to attend to an object the several contents of which are A and B and C, where A, B, and C are equal and all stand on exactly the same footing. A case so extreme, I at once hasten to add, cannot actually exist. If one is to observe really and in fact, one cannot observe really at large, but in order to act one must act, as we say, in a certain interest. But this means that our attention is never equally diffused, and that more or less we are compelled to select and to limit. An animal, that searches when hungry, will search not for anything and everything, but always for something more or less special while neglecting the rest; and the animal must thus always select more or less from the totality of what in general it perceives,

¹ Prof. James, *Psych.*, i., 405, ii., 569, teaches the right doctrine that there can be but one object. I do not know if it is quite consistent with this when, p. 409, he speaks of a plurality of "entirely disconnected" systems of conceptions. Prof. James's use of the word "object" is however (i., 275 foll.) to the very last degree loose. As to oneness of attention Dr. Stout teaches the right view throughout, *Anal. Psych.*, i., 194, 211-212, 260.

and even from the limited totality of that which it sees or smells. The extreme of diffusion will therefore not be present actually and in fact, since with regard to the whole object some neglect and some selection is necessary.

There will in the first place be features of our scene, or in other words of the total object before us, to which we give really and in fact no attention at all. Our object is thus so far divided into two fields, one of inattention, we may say, and the other of attention. And passing by the first let us look at the second, the field and object of attention. Will all the details of that object be without exception attended to equally? Is none relatively neglected while another is in comparison more prominent? Is everything within attention's object still simply co-ordinate and coupled still by a mere 'and,' the one feature being no more important and attended to no more than is the other? If this is ever so, it assuredly is not so always, and, where it is not so, we have even within the chosen field at least some subordination. We find in short no longer a mere 'and'. It is not a case of attending simply to A *and* to B, but of attending to A while not omitting to notice B. And B has with this become lowered to the rank of a condition or circumstance. It is a mere adjective, a more or less subordinate detail in the object, and subordination once begun can be carried to a great length. We may find in short that in the end what we call attention's 'object' may be very different from the true object and aim of our attention. That true aim, that real object, may be even the exclusion or the destruction of the nominal object of attention.

We have in attention (*a*) that part of the whole object to which we do not at all attend. This must be distinguished on one side from all of the moment's feeling which is not even an object, and on the other side from that part of our whole object to which we attend. We have next (*b*) this real object of attention with all its internal detail. And we have last (*c*) the nominal object. The nominal object is that part of the detail, or that aspect of the whole process, which for some cause we select and call the object of attention. And there is a tendency here to confuse, and to put this nominal object, this mere fragment preferred mainly for the sake of convenience, in the place of attention's real and entire object. And from this origin rises a whole train of more or less disastrous mistakes.¹ I will proceed to explain and to enlarge on this statement.

¹ The metaphor of the visual field and focus which in Wundt and his followers appears as a doctrine, has, I venture to think, in its results

The 'object of attention,' far removed from being a term clear and precise, is, as we have seen, a phrase full of ambiguity. But in too much psychology, as in common life, this phrase is used with no regard for its uncertain meaning. The 'object' of attention is in this respect like the 'subject' of a judgment. In a judgment the nominal subject may be something very different from that about which the assertion really is made, and the logician who fails to see this and to remember it will not avoid error. I will point out at some length this ambiguous character of attention's object. If we take such an instance as the pursuit of a prey by a man or a beast, the real object of attention is not the mere animal pursued but the whole pursuit of that animal. And hence every detail in the scene which in any way bears on this pursuit, whether as contributing to it or as hindering it, is or may be included within the real object attended to. Or let us take the instance where a woman's object in going to some party is in fact to promote the success of her daughter. We might say here naturally that, apart from oscillation and failure, her daughter was throughout the time the real object of her attention. But this way of speaking, if convenient, is not correct. Her true 'real object' is the observing, the doing and the preventing this and that thing with regard to her daughter, and, we must add, in a certain interest. And hence it is hard to say what detail in the scene may as a condition or circumstance fail to be included in the object which she pursues—to be attended to and to be contained in her attention's real object. And it is from this point of view that we must understand also the *diversion* of attention, for diversion once more is an ambiguous phrase. When we say that something occurs to attract the mother's attention to something other than her daughter, our meaning is doubtful. We may mean first that, for a longer or shorter period or periods of time, she does not think at all about her daughter or in any way notice her. And, if so, during those periods her attention to her daughter has ceased, except in an improper sense to be noticed below. But on the other hand our meaning when we speak of diversion may be widely different. For the new pursuit and the old one may be co-ordinated in various ways into one whole object. And in this case the diversion of my attention from A will not imply that I cease to attend to A *because* I now attend to B. For

been decidedly mischievous. The metaphor appears in Lotze's *Med. Psych.*, p. 505, and I should presume that Wundt owes the doctrine to Fortlage's *Psychologie*, but he himself is, I suppose, responsible for its prevalence so far as it has prevailed.

I may attend at once to both B and A as co-existing adjectives in one pursuit or scene, or I may subordinate B to A in various ways as a more or less accidental detail, circumstance or condition. The question is here not of 'Yes or No' and of 'Either one or the other'; the question is really about both, and it concerns the degree in which each is present, and again the relative position in which the one stands to the other. The diversion of attention in short takes place here within the attention itself. And hence the division and the diversion of attention are phrases the meaning of which can never anywhere be assumed as known. The meaning will vary in different cases and it will vary perhaps vitally, and it must be investigated for each purpose in hand before conclusions are drawn. And I doubt whether even with the regenerate man of the psychological laboratory this necessary investigation has always taken place. The object of attention, even where our attention is concentrated, is not that aspect of it which for convenience we may abstract and may entitle the object. The real object is on the contrary always a process with this 'object'. It is a more or less systematic whole of action and scene in which the nominal object may be more or less reduced to a detail or condition. That which, for example, Mr. Shand has called the "set of the interest" (MIND, N. S., 12, 454) is really an integral part of the attention's object, and this may be true again of the whole present scene with its background and environment. When I attend to the decay and to the disappearance of a sensation, this mere sensation is not the real object to which I attend. And the fact that I observe the cessation surely proves that any such view is erroneous. The object which I really observe is the sensation in its relation perhaps to a certain special system or scale, and at least in its more general connexion with a wider order and scene. And if we forget this then, as we saw above with regard to the question of intensity, our inquiry may be ambiguous and our conclusions may be vitiated beforehand. In short between the real and the nominal object of attention the divergence may be vital. Our real object (as we saw) may even consist in the negation of what we call our object. I may thus be said to attend to a thought which persecutes me, while I really attend to the extruding of this thought from my mind. My object here is the process of extrusion together with, all that this process, implies. But I, taking into view the thing on which I am to act, for convenience call this my object, and I thus am led into error both in theory and practice. My real object, the process of extruding A, is a negation, which like all negation,

involves a positive basis, and A itself is a detail which has no right to appear except as a condition thus positively negated. And if this essential subordination is for a moment wanting, and if A for one moment is set free, my object and my attention have at once been changed surreptitiously and radically. There are probably few of us who in practice have no acquaintance with this error. We have resolved to attend to the not thinking of something which tempts us. Our resolve here, if genuine, and our true object is to drive out this idea when it occurs, and to do this by keeping our minds fixed on that which will extrude it. And the Devil, when he knows his business, induces us by some pretext to keep the temptation before us. He suggests that it is even our duty always to bear this temptation in mind, of course always qualified by the idea that it is a thing which we reject. And thus the idea naturally, by being held before us, tends to free itself at least in part from its mere subordinate phase, and so in the end acts positively and independently. And our object and our attention have in this way been essentially transformed. We may note again the same natural transformation in the case of repentance. The repentance, we may say, that allows itself ever to think of the past deserves to be suspected. And repentance, we might even add, is a luxury permitted only to those who are morally rich.

The bearing of this whole question is so wide and its importance is so great¹ that I will ask the reader to delay and to consider carefully a further instance. And I will take this instance from Mr. Shand's article in *MIND*, N.S., 12, p. 457. We can, of course, attend to a pleasure or a pain and make it our 'object'. But the effect of our attention upon this object may vary indefinitely and may go to strengthen it or again to expel or to weaken it. And hence, if in each case we assume that our object is the same, we seem landed in a difficulty. But the real object, as we have seen, is in each case not the same but different, and to attend actively to a mere sensation or to a mere pain is in no case possible. The sensation or the pain or the pleasure never is and never could be the entire and real object. It is but one feature in that larger object to which I really

¹ In the end it takes us back to the question of the true essence of negation, and I think that wrong views as to this have in certain points injured psychology. The possibility of a negative will and the real nature of aversion are points to be discussed in a future article. For the second of these see *MIND*, No. 49, p. 21. The doctrine of our text will be shown in another article to have vital importance also with regard to the question of mental conflict and of imputation.

attend and which in each several case may differ widely. Thus with pain my true object may be the means which I use to remove it, or I might possibly attend to the dwelling on my self as a sufferer from this pain, indignant or unresisting or calmly resigned. My object and my attention in each of these cases is something different, and, if the effects vary, that result is surely natural. Again I may attend to a present pain not as to a thing by which I now am perturbed, but as to a fact in which I take theoretical interest. I may wish to observe this pain as a given psychical phenomenon, or I may wish to view it in its wider bearings either as this pain or more generally, and in either case as an element in the moral world or in the Universe at large. The object even of such theoretical attention will not be the same in each case. And even here the effects may be more or less diverse, but the *general* tendency is here, we may say, to subordinate the pain as now felt and so to weaken it. From this I may go on to attend in a different way. I may fix my mind on the pain as a thing which should not be attended to except with contempt. Here my real object is the practical degradation or extrusion of the pain, and this negative process involves a positive object and a positive volition. My aim is to carry out that idea of my self which satisfies me and of which I approve, and such an object implies the negation of the pain. But there is, I think, no occasion to enlarge and to dwell further on this instance. Enough has been said to make clear the essential ambiguity of the 'object'. There is in brief never any presumption that what we are disposed to call attention's object is the real object of attention; and that real object may even on the contrary consist in the positive suppression of the nominal object. Hence every inquiry must begin with this preliminary question, What in the case before us really is contained in the true object of attention?

I will now briefly touch on a point which I have noticed already, the meaning which should be given to a 'permanent attention'. We should all say naturally that perhaps for weeks we have been attending to something, and it is of course obvious that through all this time we cannot actually have attended. And in the same way we 'keep watch' where through all the time we have not been actually watching.¹ We mean, I presume, that we have had

¹ See here Prof. James, *Psychology*, i., 420. There is no doubt that sustained active attention generally means a succession of willed acts, but it is not clear what are the limits of such an act. There must be an

throughout a constant will to observe, and the sense to be given to a constant or permanent will can be best discussed further in a later article. But here as elsewhere, whenever we speak of attending, we mean a special attention with regard to a certain particular purpose. And if through any period our amount of actual attention has been sufficient for that purpose, we naturally express this by asserting that through all the time our attention has been there. It has not really been there, but what has happened has been this. The idea of carrying out the proposed end has been associated with my inner and outer worlds in such a manner that, given the occurrence of any change sufficiently connected with this idea, my actual attention to the means will at once be aroused. And thus by a licence our attention is said to have been present throughout, since it has been present conditionally. And it has been actually present so far as our end and purpose requires, and everywhere the necessary amount of attention is and must be measured by the purpose and the end.

From this I will go on to offer a few remarks about the fixation of attention. If we remember that active attention involves will, and that will is the self-realisation of an idea, we can at once reply generally to the question how attention is fixed. Active attention is fixed always by the idea of an end. The idea, we have seen, may be the idea of an activity which is no more than theoretical, but in some form the idea of an end is essential. Wherever it is absent, there at least for the time we are without active attention. We may be in a sense occupied and engrossed, we may be in such a state that whenever we deviate we are brought back, and hence, as we have just explained, attention is present in such a state conditionally. But, apart from an idea which realises itself, we are not actively and in the proper sense attending. We may say then that always and in principle attention, in the sense of active attention, is fixed by an idea. And if we endeavour to pass behind this idea to a more fundamental attention, we are led either to a fresh and more remote idea or to something which certainly is not active attention and will. We may doubtless ask a further question as to how ideas themselves become fixed, and this question is doubtless as important as it is wide and difficult. But I do not think that

idea which realises itself, and, when that is over, the act is over, until again we have an idea, either the same or another. But suppose, *e.g.*, I have willed to occupy myself with a subject and the occupation goes on, at what point does that occupation cease to be the realisation of my idea and so to be my act?

such a problem falls within the limited scope of this article, and at any rate it is impossible to deal with it here. A question which involves difficulties such as would be raised, for instance, by any discussion of what are called "fixed ideas," deserves to be treated with some respect.

How and under what laws the idea acts in attention is again a question which I cannot attempt here to answer. Without entering on this I will briefly notice our employment of outward objects. As a help to concentration on an abstract problem we are used to gaze on something prominent in our field of vision and so to anchor our thoughts. This familiar process has two sides. It is in part negative and serves to inhibit distracting sensations and movements, but in the main and in principle it is positive. The outward object has itself now become part of the content of an idea, the idea of myself pursuing a certain end. And hence the object itself now on occasion resuggests the pursuit and so resists deviation.¹

I will conclude with some observations on a point which bears on the foregoing, the connexion between attention and what is called 'conation'. We have here again a term which is dangerously ambiguous.² Conation may be used for something which is either not experienced at all, or at least is not at all experienced as conation. But, passing by these senses, I should deny that conation is involved in attention, unless conation is used merely as a general head which includes volition. If it were used more narrowly and taken to imply an experienced effort or striving, we could not truly say that all volition and attention contain it. Attention, being will, must involve an opposition between existence and idea, but I cannot agree that this opposition must entail an effort and struggle. The resistance of the fact may be no more than what comes from inertia, and to remove it actually may cost little more than to anticipate its removal ideally. And if the alteration of existence implies always a struggle, I at least can often neither perceive this nor feel it. And hence I could not admit that, used in this emphatic sense, conation belongs to all active attention.

¹ On the unmeaning movements made in attention see Prof. James, *Psychology*, i., p. 458. He however omits to notice that, beside "drafting off," these movements, if monotonous, may fix positively. A movement with one character may serve as a fixed object. How far, if at all, without a fixed external world any attention and any self-control would in the end be possible, is an interesting question on which here I of course do not touch.

² With regard to conation I may refer the reader to *MIND*, N.S., No. 40.

It is true (to pass from this point which is of little importance) that our attention corresponds on the whole to our permanent interests. Our attention may be said to answer in the main to the felt wants and the unfelt needs of our nature and to conduce to their satisfaction. But to turn this broad correspondence into an essential unity, or even into a necessary connexion, is indefensible. It is an attempt to force a construction on the facts against which the facts, unless we close our eyes, most evidently rebel. Thus to identify every 'disposition' with an actual conation is plainly unjustifiable, so long as we use conation for that which is experienced and of which we are aware. And if on the other hand we take it as something either not experienced at all as conation, or at all events not so experienced by that consciousness of which we speak, we should at least make clear what it is that we do and that we do not assert. But, if apart from such hypotheses we go by the facts, one conclusion becomes plain. We may will and may attend actively because we have first been compelled to 'attend' passively, because, that is, we have been somehow impressed and laid hold of by an idea.¹ And if attention is used in this improper sense, we often will because we have attended, and do not attend in the least because we will. If one follows the known facts one must admit the existence of volition, where the idea realises itself quite apart from any antecedent desire or conation, and where these have not even contributed to the origin and suggestion of the idea. We may end in such cases, and we probably do end, by attending actively to the idea, but we may do this because and only because the idea has laid hold of us passively. Thus our will to realise this idea in external action and in inward knowledge is but the self-realisation of the idea which so has possessed us. And you cannot, if you keep to facts, maintain even that the suggestion holds us in all cases because it arouses desire or even pleasure. For in some cases these both are absent, at least from the known facts, while in other cases we may find even the presence of their opposite. In short the attempt to get rid of ideomotor action, or to deny that at least some ideomotor actions are volitions, is founded on error and leads to a conflict with fact.² The suggested idea which moves us does not, to repeat this, always move us because in any sense it corresponds to an actual conation, if, that is, conation means something

¹ 'Idea' here includes any suggestion even when coming straight from a perception.

² I hope to show this at length in a future article.

which we know and experience. This idea may come from an association, or it may arise from some kind of external or at least sensational emphasis, or we may be unable in any way to assign to it a psychological origin. There are cases where all that we are aware of is that the idea somehow is there, and that in itself it does not please us nor do we desire its fulfilment. But the idea remaining there, and because it remains there, becomes insistent and goes on to realise itself, and in this way unfeeling forces, we may say, our will and our active attention.

If it is urged that we have a general disposition to realise all our ideas, I have no wish to gainsay this. I am not, however, prepared to agree that such a disposition is ultimate, and in any case the assertion that it essentially depends upon pleasure or pain or essentially answers to a conation, I must once more repeat, seems really contrary to plain fact. You may add again, if you please, that, without some special disposition in each case, no idea could hold and possess us. And once more, if you will not in every case assert the necessary presence of pleasure or pain or of conation or desire, I am ready to accept and even to endorse this doctrine. But in some cases I must insist that this disposition is but physical, physical I do not say entirely but for the most part and in the main.¹ If you are true to facts, and if you keep to that individual soul with which alone you are here concerned, you cannot in all cases take the disposition as psychological. But to suppose that, with a physical or with even a psychological disposition, a step has been made towards refuting the doctrine which we have advanced, would in my opinion be most mistaken. It is a subject which however cannot be further pursued in the present article.

¹ What I mean is this, that, however right you may be in saying that for psychology a certain disposition is merely physical, you will never be right in asserting that its psychological result comes merely from it, and that psychological conditions have contributed nothing to that result.

II.—THE LATER ONTOLOGY OF PLATO.

BY A. W. BENN.

It is only within recent years that a complete and satisfactory view of Plato's philosophy has been made possible. Such a view may not yet exist; but at any rate we have what our predecessors had not, something like adequate materials for its construction. By a rare good fortune, indeed, the world has always possessed all that Plato ever wrote about philosophy; but his writings have come down to us without any authoritative interpretation, with imperfect external evidence of their authenticity, and with no external evidence whatever, beyond the fact that the *Laws* was the last published, of the order in which they were composed. There are thinkers like Plato's own disciple, Aristotle, who can be thoroughly understood in the complete absence of such chronological information, for their systems are perfected before they begin to teach, and each successive treatise does but add fresh illustrations of the same unalterable principles. That formal systematisation was ever present as an ideal to Plato, but was never actually realised. His artistic instincts were always leading him away from the rigid symmetry which as a dialectician he professed to admire; as an Athenian noble he despised those habits of plodding industry without which strict self-consistency cannot be achieved; and above all he had a mind that was always growing, that readily responded to altered circumstances, and that was constantly assimilating new material. The older interpreters could not see this, they mistook him for a pedant like themselves; and there are some who cannot see it now. Hence one attempt after another has been made to get rid of the contradictions that abound in his writings by a perverted exegesis, or by a wholesale rejection as spurious of some of the most important Platonic documents; or, if of a more genial turn, they contended that this great inaugurator of reasoned truth threw out with supreme irony a handful of irreconcilable theses to be fought over by his credulous disciples. It has been reserved for our own

time to introduce into this study also the fertile method of evolution already applied with such success to the Pentateuch and to Homer; and, what was indispensable to a right understanding of Plato, it has given us, to begin with, an account of the order in which his *Dialogues* were composed, based not on any doubtful *a priori* theory of their logical development, but on unimpeachably disinterested philological evidence.¹

For this important achievement, the indispensable condition of all further progress, we are chiefly indebted to English scholarship; and that such should be the case seems a fitting reward for the devotion to Platonic studies which has honourably distinguished our country ever since the Tudor period, a devotion common to our thinkers and our poets, to the children of the Renaissance and the children of Puritanism, to the pupils of James Mill, and the pupils of Jowett. There is, indeed, as Wordsworth observed, a large infusion of Platonism in the English genius; and the claim will only be rejected by those who have failed to discern how much of practicality there is in the one and how much of idealism in the other. But the kinship of the English mind to the mind of Plato, if such there be, is a privilege that has its dangers. Our interpreters are apt to put more into him than he contains, to read him in the light of their own favourite speculations, to credit him with a maturity, or at least a modernity of which, with all his anticipatory reach, the Athenian prophet was quite incapable. Charles Kingsley tells us of a Cambridge tutor who put a too inquisitive undergraduate in his right place by observing that their business was to translate Plato, not to understand his philosophy. If that stern teacher still lives he might profitably warn a later generation that their present business is to understand Plato's philosophy, not to translate it into terms of modern thought. The author of the *Parmenides* and the *Timæus* was neither a Hegelian nor a Kantian, neither a Leibnizian nor a Berkeleyan; he was not even a Platonist, except in so far as Platonism means a life-long passion for truth, an unweariable capacity for rising to new points of view. But we must learn to admit that among those points of view the subjectivity of modern philosophy had no place. The notion of matter as a mental function, still more the ideality of space and time—first glimpsed by Spinoza—never dawned on his horizon.

¹ For a full, clear and interesting account of the methods and results of this investigation, see Lutoslawski's *Origin and Growth of Plato's Logic*, London, 1897.

In this respect the Germans, with their wider and more careful reading, have a great advantage over us. A critic like Zeller acquires from his familiarity with the whole range of ancient and modern speculation a certain tact that makes such misconceptions impossible to him; and when they are seriously put forward by others his familiarity with the Platonic texts brings to his memory the decisive passages by which they are dispelled. That Zeller should refuse to admit what is good and sound in English criticism when he finds it associated with the chimerical interpretations alluded to is natural, though regrettable. But there is reason to hope that younger German scholars will keep a more open mind on the subject.

So far it may be claimed that one important result of the new Platonic criticism has been placed beyond all reasonable doubt, and that another result, although far from certain, has been made at least extremely probable. Of these the first relates to the order of the *Dialogues*, and the second to the Theory of Ideas. It is now generally admitted that the so-called dialectic dialogues were written after the *Republic*, and represent a more advanced stage of reflexion; while among the dialectic dialogues themselves the *Parmenides* precedes the *Sophist*. The *Timæus* keeps its old place as a late composition coming not long before the *Laws*; and a strong case has been made out for assigning the *Phædrus*, once considered a very early work, to a date falling shortly after the completion of the *Republic*.

With regard to the true meaning of the ideal theory there is less unanimity, and it is a question on which opinions will perhaps always differ. Until a comparatively recent period the accepted interpretation was that Plato credited the Ideas with an independent and separate existence apart from the sensible appearances in which they are manifested to us. Many passages in his own writings, backed as they are by the clear and emphatic testimony of Aristotle, might be quoted in support of such a view. But an increasing number of scholars seem to agree in thinking that it is irreconcilable at least with the positions maintained in what are now ascertained to be the later dialogues. This at any rate is my own view, and the present article is offered as a contribution to its support.

It is admitted that Plato, under the name of Parmenides, has anticipated all the objections subsequently urged against the transcendence of the Ideas, and that he has stated them with a vigour that leaves little or nothing to be desired.

Whether he is attacking his own former theory, or the theory of his disciples, or the theory of the Megarians—a school which by the way seems to owe its existence largely to the historians of philosophy—is a question of little importance in this connexion. The difficulty is that he seems to give away his own criticism by concluding with the declaration that to disallow the existence of eternal and immutable Ideas is to destroy the possibility of dialectics (*Parmenides*, 135 B-C). But such an assertion makes at most for an attitude of provisional scepticism, and leaves the objections to the transcendental theory unimpaired. Perhaps we shall find in the sequel that Plato afterwards hit on a method, more or less satisfactory, for making his way out of the dilemma.

The second part of the *Parmenides* professes to furnish a new mode of testing hypotheses by alternately assuming their truth and falsity, deducing the consequences that result from each position, and comparing them with one another. The cases chosen are the existence and the non-existence of the One. We are invited, that is, to consider what follows from either alternative, first with reference to the One itself, and then with reference to all other things; the reason given for limiting the discussion to these particular theses being that the counter thesis, 'If the Many are,' had already been discussed by Zeno, the disciple of Parmenides, with a view to defending his master's philosophy against superficial objectors. For Parmenides, according to Plato, asserted that the One alone truly is; and when people made merry over the absurdities that follow from such a doctrine Zeno retaliated by exposing the still greater absurdities that would follow from the reality of the Many.

It is important to note that the terms One and Many, as used by Plato, have by no means the same force as the same terms as used by the Eleatics. What with them had been a purely geometrical distinction has become with him a metaphysical distinction. The All, said Parmenides, is one continuum without separation or distinction of parts. For, added Zeno, if space were conceived as divided into parts sundry impossibilities would follow. Plato, on the other hand, means by the One the idea of unity conceived in its very highest degree of generality, and by the Many he means everything besides, everything that is not unity. It is therefore clear that in developing the logical consequences of assuming the existence or non-existence of the One he is not speaking about the universe as a concrete whole; nor do his difficulties find their solution in that view which looks on the Absolute as the reconciling synthesis of contradictory

attributes. Indeed he has been at some pains to exclude such an interpretation. In the *Parmenides* itself he warns us that the discussion is not concerned with visible objects, which are just what the historical Zeno was concerned with (129 *sqq.*); the warning is repeated in the *Philebus*, where, in evident reference to the present argument, the common and obvious paradoxes about the One and Many are only mentioned to be dismissed as childish in comparison with the puzzles arising from the consideration of purely ideal unities (14 D); and once more in the *Sophist* Plato shows himself perfectly aware that the Absolute of *Parmenides* was not an abstract unity, but an individual extended whole (244 E). It is then merely by a dramatic equivocation that the Eleatic couple are introduced as talking about the One and the Many in the *Parmenides*; and we have to ask ourselves why Plato should single out that particular pair of terms for the application of the dialectic method by which the validity of the ideal theory is to be finally tested.

The answer is, in my opinion, that Plato has chosen this particular pair to operate on because the opposition of the One to the Many is the most general expression for the ideal theory itself. He has told us repeatedly in the *Republic* (476 A, 507 B), in the *Phaedrus* (265 D), and now once more in the *Parmenides* itself (128 E *sqq.*) that every Idea is the reduction to unity of what our senses showed us as scattered among a multiplicity of phenomena; while in the *Republic* he had pointed to an ultimate Idea, the Good, to which the particular Ideas are in turn related as many to one (509 A, 511 B).¹ If then the assumption of this highest abstraction leads to a series of inextricable contradictions the very acropolis has been betrayed, the old theory must be abandoned as hopeless, and a new interpretation of nature substituted for it. The logical value of the reasonings that fill the latter part of the *Parmenides* is not now in question. They may form a chain of rigorous demonstration, or they may be a tissue of sophistry. In either case the net result is the same. The theory of separate Ideas when reduced to its simplest expression lands us in a quagmire of hopeless contradictions.

A word has been said about the fallacy of interpreting Plato by identifying his doctrines with the results of modern thought. Nevertheless where there is no danger of such confusion, examples drawn from modern philosophy may advantageously be used in illustration or development of his

¹ I think this may fairly be taken as Plato's meaning, although he does not state it in so many words.

principles and methods. In the present instance Locke's criticism of the theory of innate ideas, furnishes, I think, an appropriate parallel. It will be remembered that the great English thinker in contravening the doctrine that there are certain primary notions not acquired by experience which the mind brings with it into the world and possesses in perfection from the first moment of its existence, opens his attack by disputing the *a priori* origin of the two axioms, 'What is, is,' and, 'It is impossible for the same thing to be and not to be'; 'for these,' he thinks, 'have of all others the most allowed title to innate'. But I do not understand Locke to assert that any one had ever in so many words declared these two propositions to be innate; nor am I aware that they were classed as such either by the Stoics or by Lord Herbert of Cherbury, or by Descartes, the opponents whom throughout he has in view. Any how he argues that if principles so general and so certain are not innate, no others are; and although he discusses on their own merits some alleged cases of innateness, the question has, in his opinion, been virtually decided by showing that the supreme laws of logic are not present to every human mind from the moment of birth.

Now what I would suggest is that Plato uses the One and the Many as Locke uses the laws of Identity and Contradiction, namely, in order to cut out the transcendental theory by the roots. For the result of his inquiry is to demonstrate, at least to his own satisfaction, that whether we assume the ideal One to be or not to be, it will both be and not be, and will involve everything else in the same disagreeable predicament. In other words it is a thoroughly nonsensical conception. And we are left to infer that what is true of the supreme Idea must be true of all particular Ideas; they cannot without contradiction be isolated from the multitudinous phenomena which they unite.

But the interest of the *Parmenides* is not exhausted by this result, revolutionary as it seems. It not only gives evidence of Plato's dissatisfaction with the transcendent realism of his middle life, but it also throws a light forward on the inquiry that was next to occupy his thoughts. This is a point on which his silence becomes more significant than his speech. The dialogue is left unfinished,¹ at least to the extent of having no formal conclusion. The interlocutors do not take leave of one another, nor do they agree to meet for a further

¹ I say this deliberately, after reading Maguire's argument to the contrary.

discussion of their difficulties. May we not suspect that Plato was surprised in the middle of his search by an unexpected discovery which so to speak cut across his path at a right angle and set him on a new line of reflexion? To hazard a guess, the discovery was that in losing his first principle of existence he had lost, what to him was no less valuable, his first principle of classification as well.

For knowledge as well as for being the first principle took the form of a contrasted couple. Without such an antithetical arrangement indeed Greek thought could no more live and move than one of the higher animals could live and move without bilateral symmetry of structure. Even when the opposing terms were identified, as by Heracleitus, or one side suppressed, as by Parmenides, it was only their simultaneous presence to the thinker's mind that made thought possible. Now Plato, as we have seen, had chosen the antithesis of the One and the Many as the most general expression of his ideal theory. But on profounder reflexion it had melted away under his touch. Each of the Many reproduced the One: the One resolved itself into an infinite multitude of parts. Fatal to his own system, he seems to have believed that the result was fatal also to the Monism of the Eleatics. Nevertheless it was apparently to Parmenides that he turned in search of a new expression for the ultimate antithesis. At any rate in his next important dialogue, the *Sophist*, three such fundamental distinctions are enumerated, and all three may be traced to the great poem of the Italiote sage; these are, Being and not-Being, Rest and Motion, the Same and the Other (Identity and Difference). Parmenides had declared Being to be eternally unmoved and absolutely homogeneous with itself. According to him Motion and Variety have no positive meaning; they are mere negations, forms of not-Being, and therefore not only non-existent, but even inconceivable, for what is not has most emphatically no being even for thought, since to be thought of and to be are the same. But Plato demurs to the summary logic of his revered master, and at once puts his finger on a fatal flaw in the chain of reasoning. Being and not-Being, he observes, so far from excluding one another in the rigid manner assumed, are found everywhere co-existing. To say that a thing is itself is to say that it is not anything else. To remain within the limits of the categories above enumerated, Rest is not Motion, and the Same is not the Other. Moreover since both Rest and Sameness *are* they coincide to a certain extent with Being, but do not exhaust it. Thus in reference to pure Being they both are and are not; while

again Being as such is neither Rest nor Sameness, although it rests and is the same with itself. In short not-Being turns out to be just Otherness, and as an independent category must be altogether struck out of our list, which is thus reduced from six to five members, Being, Sameness and Otherness, Rest and Motion, each participating in the nature of the remainder, with the possible exception of Rest and Motion, the relation between which is left unsettled (250 A-259 B).

These somewhat scholastic refinements—which, however, are filled with interest and vitality in the original exposition—must be carefully borne in mind if we would understand the further development of Plato's ontology in the *Timæus*. It will be noticed that our old friends the One and the Many are not included in the list of ultimate Forms. There is an occasional reference to them in the *Sophist*; but on the whole Plato seems to have convinced himself that they were unserviceable as points of reference in the reorganisation of thought. Or it may be permitted to conjecture that he had now come to identify the Many, like not-Being, with Otherness. In the latter part of the *Parmenides* he had substituted a different expression *ἄλλα* (the others) for *τὰ πολλά* (the many); this would easily pass into *ἄτερα*, and then into *ἄτερον*—the Otherness of the *Sophist*, and this would at once evoke its opposite *αὐτόν* the Same as a substitute for the One.

As another important result—important, that is, from the Greek point of view—we note that Being has been left without an antithesis, not-Being having been identified with Difference. Now according to a fundamental law of Greek thought that which has no opposite must mediate between opposites. Plato's last analysis then has for its logical consequence the necessity of finding a pair of terms between which Being can be placed; and his table of Forms furnishes two such couples to choose between. It will be remembered that these are Same and Other (or in our language Identity and Difference) on the one hand and Rest and Motion on the other. When he wrote the *Timæus* his choice was made.

Stated generally the object of the *Timæus* seems to be to show how the universe is constructed, how a knowledge of its structure has been made possible for man, and how that knowledge becomes available for the reorganisation of human life. More particularly it is an attempt to provide a satisfactory substitute for that ideal theory which the *Parmenides* had shown by two distinct methods to be untenable, and to effect this by concluding the process of simplification first begun and partly carried out in the *Sophist*.

Plato entered on his literary and philosophic career as a religious agnostic of the Socratic school. Believing like his great master that the gods had reserved the secrets of the external world for their own exclusive cognizance, he devoted himself during the greater part of his efficient life to the study of ethical and logical problems, without any absolute confidence in the power of the human mind to solve even these. But increasing familiarity with the work actually done by contemporary science, especially perhaps in Western Hellas, convinced him that the 'meteorologists,' at whom he had been taught to sneer in his youth, had reached results both in mathematics and astronomy of undeniable certainty, of great immediate utility, and of still greater promise for the future. Personally his opinion of their abilities might not be much altered: he 'had never met a mathematician who could reason'; but he saw that their demonstrations offered a model to which the true reasoner was bound to conform. Again his ethics led him to infer that so mean a passion as envy could have no place in the divine counsels; while his devotional feelings culminated in the identification of the human with the divine spirit. Finally his political studies taught him that the problem of social reorganisation could not be isolated from the problem of cosmology as a whole.

The study of cosmology threw Plato back on the systems of early Greek philosophy. All of these are more or less represented in the *Timæus*, and much of its obscurity is due to his not always very successful attempts at a reconciliation between their opposing or intersecting methods. Our business is only with those parts which seem peculiar to himself and which enter into the general plan of his philosophy conceived as a self-developing logic.

Taking up the thread of that development where it was dropped, we recall the significant circumstance that the form or category of Being was left without its original antithesis not-Being, and that accordingly by the laws of Greek thought it had to be placed as a middle term between two extremes. Well, the principal speaker in the *Timæus* tells us in the mythical phraseology employed throughout that dialogue that the supreme God mingled together the Same and the Other and produced from them the form of Being, situated between the two (35 A). It must indeed be admitted that the word which I have translated 'Being' is not identical with the word habitually used in the *Sophist* to express that category. In the earlier dialogue Plato says τὸ ὄν, in the present instance he says ἡ οὐσία. But in the *Sophist* also

ἡ οὐσία is used at least once as absolutely synonymous with *τὸ ὄν* (250 B); and the latter term has probably been avoided in the passage where the composition of Being is described simply because Plato has incidentally to speak of all three categories, the Same, the Other and their joint product as *τρία ὄντα*, 'being three things,' and there would have been a certain absurdity in implying that two out of the three were in being before Being itself had begun. If, however, it seems desirable to use the word Being only where the original has *τὸ ὄν* there can be no objection to translating *ἡ οὐσία* by Existence.¹

To place Existence between Identity and Difference and to represent it as resulting from their union is more than an advance in logic, it is an advance in metaphysics. For what Plato really means is that the supreme Ideas are not hypostasised essences, but simple abstractions derived from the analysis of concrete existence and having no actuality apart from it. Even in the *Republic* he had already hinted at such a conclusion by declaring that the highest of all Ideas, the Idea of the Good, far exceeded existence in dignity and power (509 B). We may suppose that this superiority consists in the fact that the Good, or as we should say the Ideal, is perpetually moulding reality into conformity with itself.²

But this refusal to acknowledge an independent and isolated existence of the Ideas is not to be confounded with a mere reversion to the common-sense or Cynical point of view. It is the natural outcome of Plato's practical genius, the metaphysical expression of his reforming enthusiasm. What he calls the Same is in truth the assimilative principle, the tendency towards order, harmony, and reconciliation. He has already told us in the *Sophist* that being means nothing but power, the capacity for acting or for being acted on (247 D-E). Therefore that the Same may be it must assimilate

¹This is also the word used by Dr. Jackson in his summary of the *Timæus* (*Journal of Philology*, vol. xiii., p. 6). Mr. Archer-Hind renders *ἡ οὐσία* by 'essence' in his translation of the *Timæus*. I had already proposed 'Existence' in my *Greek Philosophers* (vol. i., p. 266); but I cannot tell whether or not the interpretation was original.

²Plato would evidently not have agreed with Descartes in holding that the idea of perfection involves that of existence. A remarkable parallel to his position may be found in that last dying speech and confession of French Eclecticism, Vacherot's *La Métaphysique et la Science* (Paris, 1858), where it is argued in direct opposition to the school to which the author originally belonged that all reality is necessarily imperfect (vol. ii., p. 68); and the parallelism is the more significant as Vacherot himself was not aware of it, being imbued with the old belief that Plato realised his Ideas.

the Different to itself, must carry law and order into what else were chaotic. And that the Different also may *be* it must undergo this action, must submit to this assimilation. Nor is their union a type of practical endeavour alone; it is also the mainspring of scientific classification, which for Plato meant science itself, that which makes possible the dialectical ascent and descent through successive groups of things, with a preponderance of identity at the upper end, of difference at the lower end of the scale.

It is perhaps for this reason, with a view to the exigencies of classification, that the Same and the Other, although without reality apart from their union, are represented as not merged in it, but as continuing to preserve a certain separateness as objects of thought. Such at least seems to be the meaning of a rather mysterious passage in which the Platonic *Timæus* tells us that God mixed together the Same, the Other and Existence to form the soul. It implies that there are various types of existence distinguished by the relative homogeneity or heterogeneity of their contents, and realised in the first instance as more or less uniform or irregular modes of motion.

Here we enter on the most critical part of the whole discussion, and I must ask the reader to give his best attention to what follows. It relates to the vexed question of what Plato understood by soul ($\psi\chi\eta$).

The introduction of a creative God in the *Timæus* is, of course, purely allegorical. Nothing existed before Existence itself; and no external power was needed to combine the abstract elements into which it is decomposed by thought, as in reality they had never been separated. So much is now generally admitted. But the notion of a cosmic soul seems to be more seriously intended; and it is just what has given rise to the theories alluded to at the beginning of this paper as involving, in my opinion, a complete misinterpretation of Plato and a gross anachronism in the history of philosophy. It has not been sufficiently considered that by soul the Greek thinker means an invisible and intangible, but not—what is for us the decisive note of spiritualism—an inextended substance. In the present instance the soul described is, as may easily be gathered from the detailed account of its structure, a limited area of space divided into several concentric zones and engaged in perpetual movement. That space or any part of it should move is for us an inconceivable supposition; but Plato seems to find no difficulty about it. The difficulty for him would rather have been to conceive space as *not* moving. And these rotatory figures

into which the soul-substance is divided are no allegory; they are the orbits of the heavenly bodies, the sphere of the fixed stars with the enclosed spheres (or wheels) in which the sun and planets are carried round the centre of the universe, *i.e.*, the centre of the earth;¹ and in speaking about them as divisions of one great soul he means to emphasise their pure and incorruptible nature, the unchanging constancy of their movements, the mathematical harmony of the intervals by which they are separated, and the spontaneous energy with which their revolutions are performed. Whether seriously or not, these revolutions are represented as being indispensable to the free play of the cosmic intelligence, which through them is kept in touch with every part of the universe and made aware of what goes on through its whole extent. As Grote puts it in his business-like style, 'information is thus circulated about the existing relations between all the separate parts and specialties'.²

The conception of soul as inseparable from extension was inherited by Plato from Parmenides, with whom it was a survival of the primitive animism common to all mankind. After refining down corporeal existence to pure space the Eleatic master proceeded naïvely to identify this attenuated residuum with pure reason, a confusion in which he was followed by Anaxagoras, and which Aristotle was the first to overcome. No thinker indeed has ever made more of the distinction between soul and body than Plato; yet the distinction as we find it in him is always somewhat wavering and relative. From the ideal scheme of the *Timæus* we may perhaps gather that by soul is to be understood that form of existence in which the element of Identity prevails, by body that in which Difference prevails. According to this view, pure space stands for the utmost conceivable amount of Difference, a dim something just at or a little beyond the bounds of legitimate thought. For to Plato as to Kant to think was to condition; only what to the modern is a merely subjective process was to the Greek an objective process also, the process which alone makes existence possible, the process of limitation.

In a somewhat earlier dialogue, the *Philebus*, which like the *Sophist* supplies a connecting link between the *Parmenides* and the *Timæus*, Plato had described this process as a

¹ I am inclined to think that Plato thought of the sun and planets as being carried round the centre of the universe by flat bands or hoops according to the theory of early Greek astronomy, not by spheres as in Aristotle's cosmology.

² *Plato and the Other Companions of Sokrates*, vol. iv., p. 227 (ed. of 1885).

mingling of the Limit (τὸ πέρας) with the Unlimited or Infinite (τὸ ἄπειρον, 23 C, 26 D). With a reminiscence of his first antithetical construction he there speaks of the Limit as one and of the Unlimited as many, though without identifying them directly with the One and the Many as such; while again their synthesis, the Limited, is not treated as coextensive with existence, although a phrase occurs about generation into existence, pointing significantly in that direction (26 D).¹ But as the primary object of the *Philebus* is ethical rather than metaphysical—being in fact to show that pleasure only becomes a good through limitation—the ontological problem remains outstanding and first receives its solution in the *Timæus*, where the Limit and the Unlimited reappear as the Same and the Other, and this Other takes the shape—if shape it can be called that shape has none—of infinite space, an abstract of the content enclosed by all quantitative and qualitative limitations, and ever striving to break loose from all.

Space as defined and limited by the courses of the stars and planets presented no difficulties to Plato, for there form and content were inseparably united, and constituted the very type of eternal reality. But on descending to the lower region between sky and earth he found it filled with bodies that come into being and pass out of it again, resolving themselves into the form and matter by whose union they had been temporarily constituted. The forms, whether numbers or geometrical figures, or qualities, or groups of qualities, had long occupied his attention; he had accounted for them as terrestrial copies of eternal self-existent Ideas; and now that he had come to represent the Ideas as modifications of the Same by successive combinations with the Other placed visibly before our eyes in the heavenly spheres, it was as copies, however imperfect and distorted, of those spheres that he conceived the inhabitants of earth, as effluxes of their glory and revelations of their power, passing down by a series of degradations from perfect definiteness to something almost indistinguishable from the formless inane. Being mere images and created, or rather, if the expression be permitted, *become* things, they do not, like the heavenly bodies, possess a certain portion of space in perpetuity, but are always drifting about from place to place.² And as they

¹ The opposition here is between γένεσις and οὐσία; in the *Timæus* it is between γένεσις and ὄν (52 D), a clear proof that Plato uses οὐσία and ὄν as equivalent and convertible terms.

² So I understand the difficult words (*Tim.*, 52 C), ἐπεὶ οὐδ' αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν ἐαυτῆς ἐστίν, ἑτέρου δέ τινος, αἷ φέρεται φάντασμα, which

are dissociated from space, so space must be conceived or rather dimly imagined as dissociated from them, but as ready to assume the form of each in turn. By a curious illusion of the inward sense it is indeed represented as a partaker in their restlessness, as swaying about from one to another (52 D-E).¹

It is this ascription of motion to what Parmenides had more justly described as absolutely immovable that makes the account of space in the *Timæus* so difficult to realise. In truth space was to Plato without reflexion what long reflexion has made it to the modern psychologist, not so much an infinite aggregate of coexistences as an infinite possibility of movement; while again this conception lapses into the conception of matter as at once the subject of movement and the object of sensation. For it is by the imposition of various geometrical figures on pure unformed space that he imagines the primary molecules of matter to have arisen; and he explains the elementary properties of matter as modes of motion due to the violent oscillations of space resting on particles of different sizes and shapes, aided as would seem by the pressure resulting from the rotation of the celestial sphere; and it is by the impact of these particles on our bodily organs that sensations are produced (52 E, 58 A, 61 C *sqq.*).

We are now in a better position to consider what has become of the outstanding antithetical couple, Rest and Motion, in the readjusted economy of our philosopher's ultimate ideas. As an antithesis it would seem to have been merged in the Same and the Other. We may, if we choose, very appropriately think of Rest as the eternally self-identical, of Motion as the eternally self-differentiating principle in things.² But it would be truer to say that in this instance the antithetical relation has passed out of sight. Where there is an antithesis there is, at least for Greek

Mr. Archer-Hind seems to me to have entirely misapprehended. I can make nothing of Jowett's translation, 'an image not possessing that of which the image is, and existing ever as the changing shadow of some other,' except that the peculiar force of *φῆπται* seems to have been missed. The intricate, not to say contorted phraseology of the whole passage gives one the impression that Plato wished to disguise from others and even from himself the extent to which he had abandoned his old transcendentalism for a theory more in consonance with ordinary experience.

¹ In the above interpretation I have tried to combine what is true in Teichmüller's view (*Studien zur Geschichte der Begriffe*, p. 328) with the generally accepted view that *χώρα* means empty space.

² Indeed as much is intimated in *Tim.*, 57 E.

notions, an opposite valuation; and it would be against all Platonic usage not to class Rest as a supreme good. Yet in the *Timæus* Motion seems to occupy a very honourable position as an essential attribute of the cosmic bodies and even of the human soul, which is represented as imitating their revolutions and as being enabled to reason only by perpetually returning on itself. Nor can this view be put aside as part of the mythological machinery by which purely spiritual relations are illustrated; for in the *Phædrus* and again in the *Laws* the soul is described as ever-moving and self-moved, while the Eleatic Stranger of the *Sophist* declares motion to be inseparable from being (245 C, 896 A, 248 E). In all these instances, however, if I am not mistaken, we are to think of Motion not as absolute, but as combined with Rest. The possibility of a direct union between the two had been suggested in the *Sophist* and provisionally rejected, but with a hint that the question might be reopened on a more suitable occasion.¹ And now in the *Timæus* the solution seems to have been found. May we not say that Rest and Motion are combined in the perfectly uniform revolutions of the starry sphere (or rather of the whole world) on its axis, of the lesser spheres on their axes, and to a less extent, that is with a preponderance of the inferior element, in all the other periodic cycles of nature? If so another abstract opposition has been reconciled in the actuality of concrete existence.

Reference has just been made to the intimate association between psychic activity and movement. The notion is peculiar to Plato's later dialogues—assuming the *Phædrus* to have been written after the *Republic*²—and reaches its extreme development in *Laws* (book x.), where an evil soul is postulated as the cause of irregular movements. The analogy with Zoroastrianism at once suggests itself, but is probably accidental. Where Plato is writing for a popular audience, as in the *Laws*, the introduction of moral values in connexion with physical speculations must not be taken too seriously. The significant thing is the thoroughgoing identification of soul with the cause of physical motion, with what modern science until recently called Force, or even with motion itself, considered as the result of impact and

¹ 256 B, with Prof. Lewis Campbell's note.

² Lutoslawski, *op. cit.*, p. 348. The absolute dates assigned by M. Lutoslawski to the *Republic* and the *Phædrus* are in my opinion much too early; and as regards the latter I do not see what support he gets from Thompson; but the important thing is the determination of their relative date, and there I agree with him.

pressure, and the merely secondary reference to feeling and thought. We can hardly suppose that Plato attributed the disturbance of one stone by another—which is an instance of what he calls irregular motion—to the direct action of Satan, or whatever else the 'evil soul' is to be called. The question is rather how far he really attributed conscious intelligence to the animating principles of the celestial bodies. We seem to be dealing with a stage of reflexion where spiritualism and materialism, monism and dualism are still very imperfectly differentiated.

Physic from metaphysic takes defence
And metaphysic calls for aid on sense.

Space, matter, motion, force, life, soul and reason form a continuous series, our interpretation of which largely depends on the term that we choose to take as the keynote of the whole system. And there is at least one indication going to prove that the idealist view will not bear being too strictly pressed. But here the question, already a sufficiently intricate one, becomes still more complicated by its connexion with the doctrine of final causes.

Plato distinguishes between teleological and mechanical causation, an opposition which has survived into modern philosophy. With him as with us the distinction lies between intelligent action for a pre-determined purpose and blind obedience to physical necessity. But at the very outset a difference presents itself between his point of view and ours, which incidentally illustrates the extreme caution needed in the comparative study of ancient and modern thought. For when we follow the parallel into detail what seemed a resemblance becomes a contrast. The spiritualism of Athens is the materialism of to-day. The immutable uniformity, the eternal self-repetition which we associate with blind mechanical causation and which has found its most general expression in the doctrine of the Conservation of Energy, is with Plato the end itself, and its presence the very sign of a purpose fulfilled. He sees in the revolutions of the starry heavens, in what he calls the circle of the Same, the most complete success of designing intelligence, the supreme victory of the assimilative over the differentiating power. And it is by the wayward incalculable movements of the molecules from which the four elements, fire, air, earth and water, are built up, of these elements themselves and of the organisms which they nourish that the reign of necessity is best represented. But in the interest of the present argument what concerns us most to

notice is that in direct opposition to this theory of matter he elsewhere describes two of the four elements, fire and earth, as existing for the sole purpose of being perceived by sight and touch; while the other two, air and water, are there merely to connect those extremes by harmonious mathematical proportions (31 B *sqq.*). In other words matter does not, as with Berkeley, exist through perception, but in order that it may be perceived by our senses, and therefore it takes the form of fire and earth, an antithetical couple with the usual mediating links. And now comes the very significant detail to which attention is invited. Plato tells us that the heavenly bodies were composed chiefly of fire, and the sun (as would seem) entirely of that element in order that he might illuminate the whole heaven, and that by studying his revolutions the living beings to whom such knowledge is appropriate might learn arithmetic, and through arithmetic attain to the ideas of Identity and Difference. By the way it is rather remarkable that Plato in his increasing fanaticism for logic and mathematics should completely ignore the sun's life-giving power on which he had particularly dwelt in the *Republic*. But to return: besides their bodies of fire, the sun and the other celestial orbs have souls constituted by the twofold movement that animates them, a movement of axial rotation representing the form of Identity, and a retrograde movement of revolution round the centre of the whole cosmic sphere in a circle inclined to the celestial equator, representing the form of Difference. The fiery body is apparently devoid of sensibility, and exists only that it may illustrate an object-lesson in natural law for intelligent beings, *i.e.*, ourselves. Is it likely then that the movements which it makes manifest should be constituted or accompanied by consciousness? especially if, as there seems every reason to believe, the movements are such as could be performed without the intervention of intelligence and will.¹

To unravel this tangled skein of thought, two points must

¹ The same ambiguity is exhibited, but with much greater clearness in Aristotle's cosmology, where two independent explanations are offered of the celestial motions, either of which would render the other superfluous. The one, which may be called physical, represents the quintessential matter of which the heavens are composed as naturally moving in a circle without ever stopping, whereas fire rises and earth falls until they come to rest on reaching their respective places at the circumference and centre of the sublunary sphere. The other or metaphysical explanation (adopted by Dante) is that the heavenly orbs are animated by conscious spirits which move them round in love and emulation of the eternal self-thinking thought, itself unmoved, on which all nature hangs (*De Coelo*, i, 2; *Phys.*, viii., 10; *Metaph.* xii, 7 and 8).

be borne in mind. The first is that, as has been already observed, Plato's object in writing the *Timæus* was not merely to explain what the world is, but also to explain how it can be known. The second is that according to the unanimous tradition of Greek philosophy like can only be known by like. Plato accepted this leading, and it probably had a good deal to do with his preference for the category of identity in the construction of an intelligible universe. He had explained the heavens as a series of repetitions and imitations; he had now to bring human life under the same law, and accordingly he bends every effort towards establishing an equation between nature and man.

There does not at first sight seem to be a very striking resemblance or even analogy between the body of man and the world that he inhabits or between his mind and the principles by which that world is moved; but our logician gets over the difficulty in the following ingenious manner. The essential part of a human being is his head, the abode of reason; the trunk and limbs are mere subsidiary appendages designed to meet the necessity for nutrition and locomotion entailed by his residence in a region of perpetual flux where the loss of old material must be continually made good by the accession of new supplies. Like him the cosmic sphere and the smaller spheres that it encloses are rational animals—indeed they have furnished the pattern on which he is constructed—but being limited to rotatory movements and not subject to waste they can dispense with a locomotory, prehensile, and digestive apparatus. In short they are all head, and our heads are the heavenliest thing about us: but where are their axial and orbital revolutions?

Plato knew that our heads do not turn; and he must have known that when they seem to go round it is the worst possible sign for the orderly functioning of the brain; but he finds a parallel for the circles of the Same and the Other, that is for the diurnal and periodical revolutions of the celestial spheres in the working of a rightly ordered human reason; and he looks to the study of astronomy as a primary means of intellectual and moral discipline in the reformed society of the future. Of course it is all a fantastic way of saying that there is a unity of composition through the whole of nature, and that the steadiness of physical law is a guide to steadiness of reasoning and conduct. Yet no one would have attacked another philosopher with more merciless ridicule had he chosen a phenomenon so suggestive of dizziness as the outward and visible sign of rational reflexion, and the deliberate adoption of such an absurdity can be

explained only by the desire to force an analogy through at all hazards. But we may well ask whether the ascription of consciousness to the world without is to be understood more literally than the ascription of rotatory movement to the world within. With respect, however, to the deification of the heavenly bodies, a practical motive comes into play, which, as Plato grew older, gained increasing ascendancy over his teaching. This was the desire to reconcile his philosophy with the popular faith; partly no doubt in order to escape persecution, but also, and to a greater extent, because he had come to look on a purified theology as the surest sanction of social order.

What remains after allowing the largest possible discount for dialectical accommodation, for myth, for allegory, for religious edification gained at the expense of the old Ionian plain speaking, or of extreme deference to popular fanaticism, is the great thought of identity in difference, the conquering assimilation of the Same in the cosmic order with the Same in the human self, the mystical communion, already affirmed by Heracleitus and Parmenides, to be reaffirmed long afterwards by Kant and Wordsworth, between the starry heavens without and the moral law within. And on a lower or at any rate a different plane, the plane of pure science, the *Timæus* foreshadows one of the most fertile methods of modern inquiry, never used with more searching effect than in our own day, what may be called the method of assimilation, based on the tendency of evolution to make things not more unlike but more like one another.

In tracing the outlines of this philosophy of identity one cannot but be reminded of another *Identitäts-philosophie*, of the fragmentary system which remains as Schelling's only real contribution to the development of modern thought. For the German as for the Greek ontologist the object was to reconcile nature with man; only what the one had just glimpsed as an antithesis between knowledge and being transforms itself for the other into the profounder antithesis between subject and object. But the method by which both attempt to establish an equation between disparate quantities is substantially the same. It consists in carrying over portions of each to the other side and arranging them in parallel series until a complete analogy of structure has been effected, when the two are boldly declared to be the same, or to reflect one another. For example ('that's Schelling's way!') we may argue that in self-consciousness the subject is its own object, hence there is an identity between the two and these three are one. And with a little ingenuity and

more good-will certain physical concepts may be so manipulated as to play the part of percipient subjects to others standing for perceived objects, while a third set represents the synthesis or 'identity' of the two. Thus the evolution of consciousness does but reflect on a higher plane what was prefigured in the evolution of inorganic matter and of unconscious life.

The substantial identity of mind with its object occupies a much less prominent place in the *Timæus* than in the *Naturphilosophie*. But we can hardly doubt that when Plato set up the Idea of the Same as the ruling principle of cosmic being and of human reason alike he wished the two to be regarded as essentially one. The Same must everywhere be the same with itself. And this method would have the additional recommendation of giving a new meaning and sanction to his habit of conveying philosophical lessons through the vehicle of myth and allegory. For according to his latest interpretation Nature herself is the great allegorist and myth-maker. The consummate and eternal reality of the starry sphere repeats itself on a smaller scale through all the lower spheres, of which our earth is one; on a still smaller scale, with less definite forms and with endless self-reproduction as a substitute for their eternal duration, in the creatures of the lower world. In the *Republic* he had drawn a disparaging contrast between imitation and reality, shadow and substance. He had now learned to think of imitation as the primal reality, the constraint exercised by the Same on the Other, the obedience of the Other to the Same. And perhaps he would have recognised a truer echo of his doctrine in the *répétition universelle* of M. Tarde than in all the hollow declamation of Victor Cousin.

I have already drawn attention to the fact that the Idea of the Good in the *Republic* is, like the Same in the *Timæus*, beyond existence. And the resemblance does not end there. We are told that the Idea of the Good is, like the sun, a source of life no less than of illumination, the author of being no less than of knowledge. Now this, as we have seen, is precisely the part played by the Idea of the Same, the assimilative power of the *Timæus*. It brings order out of chaos in space, it brings knowledge out of confused sensation in consciousness. And we are told that the Good can only be approached through the study of geometry—a method not less indispensable to the apprehension of the Same as Plato conceived it, that is primarily under the form of mathematical equality.

Nevertheless the Good is not the Same. For as the

analysis of the *Philebus* shows, Plato had come to think of the former after a much more concrete and human fashion—approaching very closely to the standpoint of Aristotle's *Ethics*¹—than that under which it appears in the *Republic*. Like Existence it has passed from the position of an extreme to that of a mean. It is neither pleasure alone nor knowledge alone, but the reconciling synthesis of both, the delighted realisation of ourselves. Accordingly its metal physical functions are now taken over by the more general conception of Identity, which by combining with Difference actualises and reveals itself as an assimilative power. It is this which at once creates the cosmos and enables us to understand it through the consciousness of its essential sameness with ourselves. But neither is the ethical aspect of the absolute Idea forgotten; for Plato significantly reminds us that God, being good, wished everything to resemble Himself (*Tim.* 29 E).

Plato can hardly have been blind to the irreconcilable discrepancies between the *Timæus* and the *Republic*, and there is even reason to believe that he contemplated the preparation of a new and revised edition of the earlier dialogue with the omission of the sections embodying the metaphysical theories which riper reflexion had induced him to abandon as mistaken or incomplete. For without such an assumption the references to the *Republic* in the introductory portion of the *Timæus* can hardly be explained. Nearly the whole of the *Republic* as we now read it takes the form of a conversation originally held between Socrates and two young friends of his, Glaucon and Adeimantus, Plato's brothers, and repeated on the following day by Socrates himself to some person or persons unknown. But in the *Timæus* no mention is made of these young men, and the conversation about the structure of the ideal state is represented as having passed between Socrates and certain other persons not named in the *Republic*, Critias, Timæus, Hermocrates, and a fourth who is not now present. They have met again to continue the discussion; and to refresh their memories Socrates recapitulates the conclusions reached in common on the preceding day, but with the significant omission of all reference to the long philosophical argument extending

¹ Aristotle's sneers at the unpractical nature of Plato's ideal Good show how little the pupil can be trusted as an authority on the final teaching of the master. I have therefore been at no pains to reconcile his version of Platonism with that adopted in the present paper.

from book v., 471 C, to the end of book vii.¹ Partly on account of this omission and partly for other reasons it has been supposed by some that the summary of the *Timæus* refers to an earlier version of the *Republic* than that now extant, written when Plato was comparatively young, and that the philosophical digression was inserted long afterwards as the fruit of his riper years. Such an explanation, however, has become completely untenable in the face of modern researches, showing that no portion of the *Republic* can be dated much earlier than Plato's fiftieth year; while the evolution of his thought, if it followed the order traced out in the present paper, subsequently reached a much higher stage than that represented by the conversation with Glaucon and Adeimantus. I submit then as a not unwarrantable alternative that the later Socrates makes no reference to this conversation because its author had in view an amended version of his great work, possibly on a new plan, and at any rate with a different set of interlocutors, who were to have reserved the subject of ontology for a separate discussion.

The results here arrived at are not perhaps of any great speculative interest. World-thinkers count in the history of philosophy less for what they have actually thought than for what they have been thought to think. Now at the three epochs of his most momentous influence on the human mind, that is during the years that immediately followed his death, during the early Middle Ages, and during the Renaissance Plato passed without question for a Realist in the scholastic sense, for one who attributes a separate existence to Ideas independent of the human mind and independent of the sensible particulars that they inform. In the England of our own time he has come once more to count as a literary and philosophical force of the first order; but he counts as inspiration rather than as authority, and he counts by his earlier rather than by his later works. We have learned from him how the highest culture may be combined with the most strenuous efforts for the amelioration of life, how 'the spectator of all time and all existence' must descend to be an actor in the one time and the one existence that are allotted him to work in while he has the light. And the lesson is happily independent of what his particular opinions

¹ As Mr. Archer-Hind observes, 'its metaphysical teaching is superseded by the more advanced ontology of the *Timæus*' (*The Timæus of Plato*, p. 56 note). I do not, however, understand Mr. Archer-Hind to suggest that a new edition of the *Republic* was in contemplation; and his interpretation of this 'advanced ontology' differs widely from mine.

were and whether we agree with them or not. Yet apart from the value rightly attached by all scholars to truth as such, and from the interest always attached to the correct interpretation of so great a mind as Plato's, it may be urged that the evolution of thought becomes more intelligible when we consent to treat the cosmology of Aristotle—the key to his whole philosophy—as having been moulded far more than he would have liked to admit by the method of a master to whom he was less than just, but from whom he learned the secret of a great achievement, the reconciliation of Parmenides with Heracleitus, the principle of eternal self-identity in the absolute whole with the principle of variety, relativity, antagonism, and mutual dependence in its component parts.

III.—THE HEGELIAN POINT OF VIEW.¹

By J. S. MACKENZIE.

AT the opening of such a society as this, it seems most fitting to attempt a somewhat general survey of the philosophical situation, rather than to discuss one of those more specific problems with which the society may be expected to be engaged throughout the course of the long life of energetic thought to which, I trust, it may look forward. It is important that we should take our bearings from time to time, lest we lose ourselves in a multitude of details; and especially at the outset it is highly desirable that we should have some general conception of the point of view from which philosophical problems are to be discussed. For though a society of this kind is not to be regarded as existing for the propagation of any particular philosophical creed; yet I think it would be equally fatal to its usefulness to suppose that it has been called into being merely for the idle play of dialectic, merely to tear theories to rags and tatters, according to Plato's image, after the manner of puppy-dogs. It is, I think, a general condition for the profitable discussion of specific questions that those who take part in it should be to some considerable extent in agreement on the larger questions of principle and method. No doubt it is possible to carry on a society for the express purpose of discussing the point of view that is to be adopted; and indeed I should hope that this would form part, and even a considerable part, of our work here. But I am afraid the society would soon be felt to be unprofitable if we only came together to make known to one another the hopeless divergences in our ways of regarding things. We should in that case be too nearly in the position of those poor islanders, recently alluded to by the late Dr. Sidgwick, who earned a precarious livelihood by washing each other's clothes. We may sometimes be washing one another's clothes; and we may even, from time to

¹The Opening Address to the Philosophical Society at University College, Cardiff. Delivered in March, 1901.

time, have a sort of spring cleaning; but our regular employment must, I think, be something different. We must have some sort of garments, more or less clean, to go on with.

Now the point of view from which we approach philosophical questions will no doubt be determined for us very largely by the present position of human thought in general. We may find that we have a Socrates or a Descartes among us, some one who will be able to give a new turn to the whole course of our speculations; but even Socrates and Descartes were very largely guided by the ideas that their predecessors had been slowly building up. If we were living in ancient Athens, we should have to discuss the ideas with which Plato and Aristotle were struggling: it would be vain to attempt to introduce those of Spinoza and Leibniz, though in many respects the latter were very similar to the former. So, if we were living in the seventeenth century in Europe, our best hope of progress would lie in throwing ourselves into the problems that exercised the minds of the Cartesians. At any time we shall find that there is a point of view from which a survey can be taken, and from which advance is possible. It is of some importance, therefore, to ask ourselves where we stand at the present time, and what are likely to be the most fruitful methods of procedure. It is my object in this paper to urge that the point of view from which we must set out may, in a certain broad sense, be described as the Hegelian; and to bring out what appear to me to be the most essential elements in that position.

In doing this, I must try to distinguish between a philosophical system and a philosophical point of view. A system is the construction of an individual. It generally bears considerable traces of the idiosyncrasies of its maker—his special knowledge, his peculiar interests, the virtues that he chiefly prizes, his prejudices, his limitations. A point of view is something much wider. It is the world within which systems are made. It belongs rather to the age than to the individual. The systems of Thales, Anaximander, Heraclitus, Parmenides, are vastly different from one another; but the point of view from which they are built up is very largely the same. So it is with the systems of Plato and Aristotle, with those of the Stoics and Epicureans, with those of Descartes, Spinoza, and Leibniz, with those of Hobbes, Locke, Berkeley, and Hume, with those of Kant, Fichte, Hegel, and Schopenhauer. In all such cases we have to deal partly with the constructive efforts of individuals, but partly also with a general phase in the development of the human mind. Now, it will generally be found in such cases

that some one or two writers bring the special phase in question to a focus, and enable us to see its precise significance. Heracitus and Parmenides bring out between them the essential ideas and the fundamental difficulties of early Greek thought. Descartes shows us the beginning of one line of thought, and Spinoza its end. Hobbes represents the positive foundations of the most characteristically English philosophy, while Hume exhibits its sceptical results. So Kant gives the critical roots for German idealism, while Hegel presents to us its largest and ripest fruits. In speaking, then, of the Hegelian point of view, I do not mean to direct attention so much to the peculiar features of his own philosophical construction as to the general significance of the line of thought of which he is the most complete and conspicuous representative.

There are several grounds on which it seems to me specially desirable to draw this distinction. One is the rather obvious one, that the Hegelian system is exceedingly comprehensive and complicated. If I were to attempt to deal with its more specific features, we should soon be lost in the midst of details as bewildering as those of the Aristotelian system. We could not possibly do justice to such details, even if we could venture to hope that we had rightly understood them. Further, I am of opinion that the Hegelian system, like most other constructive systems—perhaps more decidedly than most—is an amalgam of gold and other less valuable materials. What he said about the tides is probably worth as little as what Aristotle said about the brain; and similar remarks might possibly apply even to some of the more important parts of his system. Hence I wish, as far as possible, to direct attention rather to the underlying spirit and meaning than to the more or less insignificant details. This attitude can, I believe, be justified on historical grounds. In Germany, as was natural, the Hegelian system took root as a whole, and controversies raged over its applications in particular directions, with the result that the school split up into parties, which were mutually destructive, and in the heat of whose debates the general significance of the point of view seemed almost to evaporate. In our own country the development of the Hegelian point of view seems to me to have been in some respects more fortunate. Its first and most enthusiastic exponent in this country, Dr. Hutchison Stirling, did indeed follow in the lines of its German adherents. He might fairly be described as a propagandist of the system as a system. But hardly any others of the leading representatives of the Hegelian ten-

dency in this country have adopted this attitude. The late Prof. Wallace, who did more than any one to make some of the chief works of Hegel accessible to English readers, dealt with Hegel in general, as he dealt with some other leading philosophers, not as the maker of a system, but as one who suggested certain large ideas and methods of treatment. T. H. Green, who in his later years was generally regarded as the leader of the Hegelian tendency, was very far indeed from being an adherent of the Hegelian system. According to one account, he was in the habit of saying that it would all have to be done over again. According to another, he even described the most fundamental part of the Hegelian construction as a *Wirrwarr* or Chaos. Certainly his own constructive attempts are widely different from those of Hegel, both in method and in results. Dr. Edward Caird is no doubt more fully in sympathy with the Hegelian system; but even he has been mainly occupied in making a bridge from Kant to Hegel—a bridge of which it may perhaps be said, that it is much more certain that it leads us away from Kant than that it leads us on to Hegel. The work of Dr. F. H. Bradley, again, though closer to that of Hegel than Green's, is still in many important respects both of method and of content far removed from it. Dr. Bosanquet is no doubt still closer to Hegel; but, though he has followed him very definitely on some detailed points, his general attitude is rather that of one who has absorbed some of the leading ideas of the Hegelian point of view, and who uses them freely in his own way. I need not refer to the younger members of the school, whose final position remains more in doubt; but I think it may be said of them in general that, though they are sometimes more minutely loyal in the following out of the details of Hegelianism than their predecessors were, yet their criticisms—notably those of Mr. McTaggart—point to even more emphatic divergences from the stricter tenets of the sect. Yet the result of all this has been, I think, that the general spirit of the Hegelian philosophy has gained an even firmer hold on the speculative thought of this country than it gained in Germany. Hence there seems to be some historic ground for believing that, in this as in many other cases, the letter kills and the spirit gives life. But, after all, it may be safer to rest my case on a more subjective ground. What Hegel has meant for me is the point on which I am most entitled to speak; and what I can say is that I have derived the greatest help from his general point of view, but have not as yet seen my way to follow him much with regard to details. This is

very probably my fault and not his; but, at any rate, it leads me to take a greater interest in trying to give some account of what I take to be the essential elements in his position than I should in attempting to expound the more special features of his system. I must beg, then, that you will regard what I have to say simply as a statement of what the Hegelian philosophy means for me, not what it meant for Hegel, nor what it means or may come to mean for any of you. Hegel's philosophy is a very large thing, one of the most remarkable products of the human mind; and it probably has a somewhat different significance for almost every one who approaches it. Hegel himself is said to have complained that only one man ever understood him—and he did not understand him. Perhaps all of us who try to study his work may claim in some degree to be that man. We all understand him, and do not understand him. We understand what he means for us, not what he meant for himself.

In trying to explain, in general terms, what the Hegelian point of view has meant for me, I may avail myself of a statement of the general significance of German Idealism, made some time ago by Dr. Bosanquet in a paper that is no doubt familiar to many of you—his essay on the philosophical importance of a true theory of Identity. That paper seems to me to be characterised by a more than ordinary degree of the writer's happy faculty for hitting upon the most essential points, without appearing to be saying anything very particular. He is not concerned in it, any more than I am here, with the details of the Hegelian or any other philosophical system; but he aims at a general characterisation of that movement of German thought of which the Hegelian system was the culmination. In doing this, he remarks, in the first place, that it is a mistake to suppose that the distinction between the main line of German speculation and that which is specially associated with our own country is to be found in the fact that the latter appeals to experience, or that it involves the recognition of the relativity of knowledge. No philosophy could well contain a more emphatic appeal to experience than those of Kant and Hegel; nor would it be easy to have a more ample recognition of the relativity of all things than we find in their works. It is urged, in the paper to which I have referred, that the real point of difference lies rather in the emphasis that is laid throughout the course of the German line of thought on the reality of the universal as an element of identity in difference, as against the disintegrating atomism which shows its constructive

results in Hobbes and its sceptical issue in Hume; and it is pointed out that this recognition of the universal leads to a remodelling of the treatment of some of the most fundamental questions in Logic, in Psychology, in Ethics, and in Political Philosophy.

Now, in a general way, I think we may almost regard such a remodelling as an accomplished fact in British philosophy. In Logic, Dr. Bosanquet himself, following the lead of Bradley, has done yeoman's service in this direction. We are probably not in much danger of returning either to the nominalistic Logic with its computations and equations of identities, or to the conceptualist Logic with its combination of distinct notions. The unity in difference contained in the judgment is now pretty universally recognised. In Psychology, the atomism of the Associationist school has been largely broken down by Dr. Ward's *continuum*; and, more recently, in the work of Dr. Stout, the place of the universal in consciousness has been still more completely brought to light. In Ethics and Political Philosophy we cannot perhaps as yet point to work of quite the same definite and detailed character; but Green, Caird, Bradley, Bosanquet, and others, have at least made a very good beginning in the direction that is required. If Hedonism still lingers,¹ it has certainly lost its old confident tone; and even seeks to shelter itself, as in the case of the late Prof. Sidgwick, under the wing of the universal. These various applications, however, of the idea of identity in difference, or of the reality of the universal, are almost commonplaces of the German method of philosophising. They belong to Kant, or at least to Lotze, almost as much as to Hegel. What we have now to attempt¹ to bring out is the point of view that is more distinctively Hegelian.

Now, many would, I suppose, say at once that the most distinctive feature of the Hegelian philosophy is its Dialectic Method, which appears at every point in its course, and at every point pursues the same inevitable march. The Notion fulfilling itself through negation is thought to be "the Secret of Hegel"; and it can only be grasped by following the windings of the dialectic process from Pure Being upwards. And, in a sense, I have no doubt that this is true. The student who wishes to have a thorough grasp of the Hegelian point of view must master the idea of the Dialectic,

¹ The curious revival of it in Mr. McTaggart's *Studies in Hegelian Cosmology* is noteworthy, especially when taken in conjunction with his denial of the organic unity of society.

wrestling with the expositions of Hegel himself, and perhaps helping them out by such comments as those of McTaggart, McGilvary, Noël, and others.¹ But it is possible to make too much of this. There is a danger of exaggerating the importance of a philosopher's special method of procedure, which is often an accident, and sometimes even a separable accident, of his mode of thought. I suppose few would maintain that the geometrical method has much to do with the most essential points in Spinoza, though it is of supreme importance to remember that he was working throughout with mathematical conceptions. A still better illustration is perhaps provided by Kant. If Kant had been asked what he valued most in the contributions that he made to philosophic thought, I fancy he might have been inclined to point to his discovery of the categories. We find him returning to these again and again throughout his writings, one might almost say with affection, and seeking to apply them in all possible departments of thought. They are his bunch of keys, just as the Dialectic is with Hegel. But would any recent Kantian regard them in a similar light? I suppose it would now be almost universally admitted, even by those who value Kant's work the most, that his categories are in reality derived from a view of the logical judgment that is inconsistent with his own maturer conception of its meaning, and that, as a complete statement of the essential modes of thought-determination, they must utterly fall to the ground. What is it, then, that we at the present time most value in the Kantian system? To this there might be different answers; but I believe most of them would come in the end to this, that Kant's most real contribution to philosophy was not his system of categories but his view of knowledge as involving universals which are necessary to the constitution of any real experience. What was essential to his system, in short, was his emphasis on the necessity of a Theory of Knowledge, and his substitution of this for dogmatic Ontology on the one hand and sceptical Psychology on the other. But there are few who would accept Kant's Epistemology as final, and still fewer who would accept his method of discovering the categories as an integral part of it. This is, I think, one of the most striking illustrations of the great difference that may often be found between the underlying spirit and permanent essence of a philosopher's work and certain evanescent devices of method which he himself may sometimes value even more highly than the other. I

¹ Especially now those of Mr. J. B. Baillie.

think something of the same sort might be brought out, even more strikingly, in the case of Aristotle, whose tricks of method are completely dead, though the spirit of his thought was perhaps never more alive than now; and other instances might no doubt easily be given. Now I am disposed to believe—though I am well aware that the stricter adherents of the doctrine will regard it as a heresy—that this is largely the case with the dialectic method of Hegel. It may be a weakness of the flesh, a shrinking from 'the labour of the Notion'. The Hegelian way of getting at the categories certainly seems to me very much superior to that of Kant; but if we turn it into a mechanical process, a sort of intellectual switchback, I doubt whether it has very much value. What, then, is the really important element in the Hegelian construction? To this I should be disposed to answer, following the line that has been indicated by Dr. Bosanquet, that, as the German line of thought in general brings out the significance of the true universal, so Hegel in particular has his chief significance in the emphasis that he lays on the concreteness of the true universal, on its living relation to the whole, or, in other words, on the solidarity of experience. Let me try to bring out what I mean by this, by considering it, first of all, in its relation to Kant's general theory of knowledge.

Kant, as I have said, brought out the importance of the universal or thought element in experience. In so doing, however, he left pure sensation, on the one hand, and the thing in itself, on the other, quite out of the range of thought. The intellectual element in experience was thus made largely formal, dealing with a material to which it had no real relation. It was regarded, as Caird has put it, as if it were in the position of an *episcopus in partibus*, trying to persuade the recalcitrant particulars of sense that they ought to come into the unity of thought to have peace and atonement. It is this mere '*Sollen*' that Hegel everywhere disapproves. He does not recognise the absolute opposition between sensation and thought; he does not believe that there is any such thing as a mere manifold of sensation, and consequently does not think it necessary to assign to thought the formal task of bringing it to unity. On this point, at least, modern psychology seems to be more in accord with him than with Kant. Experience thus comes to be regarded as a whole; and the work of thought is not to make it one, but rather to make it intelligible—to bring out the essential unity and systematic connexion which are already in it. Now, if we take this view of the nature of experience, a

doubt is almost inevitably thrown on any abstract and formal methods of dealing with it—perhaps, in the end, on that of Hegel, as well as on that of Kant. The universals that have real value for us, from this point of view, are not abstract principles that are brought formally to bear upon an alien material, but principles, so to speak, that emerge out of the material itself. It is such principles, I believe, that Hegel seeks to arrive at; but the significance of this is apt to be concealed from us if we attach a too exclusive importance to the dialectic method. The essence of the Hegelian method seems to me to lie much more in its genetic than in its dialectic character. I cannot quite agree with the view that seems to be taken by Mr. Hobhouse, that the dialectic is only a kind of disease, and that the healthy mind can get to the concrete universal by a leap. But I think we miss the true significance of the Hegelian conception, if we suppose that the aim of the dialectic is to provide us with abstractions, instead of helping us to annul them. And I think also that, if any one can succeed in annulling vicious abstractions, and having a clear insight into the solidarity of the real universe, by any other method than that of the dialectic process, he would be very welcome, from the Hegelian point of view, to do so. I am, indeed, not quite convinced in my own mind—but perhaps, as I have said, this is a weakness of the flesh—that the dialectic method is even the best way of doing it. But I am convinced, at least, that it must be done genetically, and not by a sudden leap.

I conceive, then, that the significance of the Hegelian way of thinking for the modern world is very much the same as that of the Aristotelian way of thinking for the ancient world. There is, indeed, a curious parallelism between the two lines of development. The English associationists ground down the contents of experience into very much the same fine powder as that to which it was reduced by Heraclitus and his school; and Kant, just like Plato, endeavoured to give it unity again by introducing a system of universals from without (differing from those of Plato chiefly by their subjectivity). It was the great aim of Hegel, just as it was the great aim of Aristotle, to grasp the concrete, to see the world of individual facts as holding in solution the universal principles by which they are to be interpreted. A view of this sort may easily be misconceived in two opposite ways. It may be represented as merely formal or as merely empirical. Aristotle's method is easily made to appear much more formal than that of Plato, and this is, perhaps, the more

common misconception. On the other hand, Aristotle may be contrasted with Plato as a mere empiricist, and this also is a common mistake. Similarly, the Hegelian method is often thought of as a formal dialectic; and, if an attempt is made to correct this, it is apt to seem as if it were merely empirical. But in the case of both these philosophers, and in that of Hegel more definitely than in that of Aristotle, we are saved from the empirical position by the conviction that we have not truly reached what is actual unless we have been able to see it in the light of thought—that only the intelligible is ultimately real and concrete.

Now, if we accept this general statement as to the significance of the Hegelian point of view for modern thought, it is not difficult to realise why his way of thinking has meant so much for many of us—even for many who by no means accept the details of his system. With the view, however, of bringing this out more definitely, I will now make a further attempt to illustrate the value of such a point of view with reference to several distinct aspects of philosophic thought. In the first place, I wish to refer again, somewhat more explicitly, to its value from the point of view of epistemology, then to its value in dealing with the particular sciences, then to its practical value for human life, and finally to its more purely speculative significance as an attempt to solve the riddle of the universe.

From the epistemological point of view, its value seems to me to lie, as I have already indicated, in bringing out more clearly what Kant was in reality aiming at. Some, indeed, seem to think that the Hegelian point of view is merely a revolt against the Kantian epistemology—a fresh plunge of the saw that had been washed into the mire of ontology. But it seems clear that the point of view of Hegel follows directly from that of Kant. Kant's doctrine of the structure of knowledge, when baldly stated, amounts simply to this, that we start with a disconnected manifold of sense material, which it is the work of thought to synthesise; and that this synthesis takes place by means of the categories, which can be discovered by a formal analysis of the logical judgment. Now such a view presents difficulties that seem in the end insuperable. The two elements of which experience is thus made up are too disparate to form any real combination; and Kant is only able to evade the difficulty by the somewhat mechanical device of inserting the imagination as a mediating faculty between sense and thought. When we inquire more closely what this means, it soon becomes apparent that what is really involved in it is that the independent existence of

the 'manifold of sense' is mythical, that pure sense, without any admixture of thought, is 'for us as thinking beings as good as nothing'. This is a point that has been further emphasised in recent times from the point of view of psychology. Here also it is urged that we have no real experience of any such thing as an atomic sensation, and that the perplexities of Hume with regard to this are a self-created torment. But if we do not recognise an independent 'manifold of sense,' it seems clear that we must also deny the synthesising activity of thought as at first conceived by Kant. If the unity of thought is implicit in our sense-experience from the outset—and this is what the doctrine of Kant seems in the end to amount to—then the work of thought in relation to the material supplied by thought is not that of putting unity in, but rather that of bringing it out—not construction, but interpretation. Now, I cannot but think that it was in this direction that the thought of Kant itself was pointing; but, if he had definitely taken the step that is here indicated, it would have involved a complete transformation of his philosophical position. It is essentially this transformation that lies at the basis of the system of Hegel. For Hegel sense and thought are no longer opposed, except as the implicit and the explicit; and so the work of thought becomes, in a sense, analytic rather than synthetic—or, rather, both at once.

Of course, this must not be understood as meaning that the sense element in experience disappears, or loses its significance. It is sometimes supposed that this is involved in the Hegelian point of view—that everything has to be reduced to pure thought. But if this was what Hegel meant for himself, as it is for many of his critics, it is at any rate not what he means for me. To take up such an attitude would be, in a manner, to return to the position of Leibniz, according to whom our sense experience is simply a confused way of thinking. If such a view were to be put forward, it would be necessary to reiterate the arguments of Kant about screws that turn in opposite directions, and the difficulty of putting a left-hand glove on the right hand. Or, again, we might refute it by pointing to the simple distinction between the colour red and the colour blue—a difference which can only be sensuously experienced, never expressed in any form of thought. The Hegelian point of view does not, I think, imply any annulling of the element contributed by sense, but only the recognition that within this element, as in all others, there are involved universal determinations which cannot be interpreted except in the light of thought.

Now, this fundamental distinction between the point of view of Hegel and that of Kant reappears again, at the other ends of their systems. The opposition between sense and thought is the real ground for the opposition between the phenomenal world and the world of things in themselves. There must be a source beyond thought for the element that is foreign to it. Hence knowledge must be conceived, not only as limited, but even as definitely bounded. At a certain point we come up, as it were, against a blank stone wall. But if once we recognise that the universal principles which thought discovers are principles that are contained in the material itself, there is nothing left outside of thought's domain, though there may be many things beyond its immediate grasp at any given time. Thought, in fact, is conceived simply as the real world rising to consciousness of itself, not as a more or less foreign power imposing its laws on a partially subjected territory.

This leads me to notice the significance of the Hegelian point of view in relation to the various particular sciences. A complaint has recently been made by Mr. Hobhouse, that much of our modern philosophic thought tends to be rather scornful of the sciences, and that a certain scepticism about science may almost be said to be taking the place of the older scepticism about theology. No doubt this attitude of mind shows itself more particularly in the 'philosophic doubt' of such writers as Mr. Balfour, who seek to defend a conservative reaction in thought by the argument that the progress of science does not lead to truth. But Mr. Hobhouse urges that such doubt is to a large extent countenanced even by many who believe in philosophic progress. Mr. Bradley refers somewhat scornfully to the principles of the particular sciences as only 'useful nonsense,' and contrasts them, almost after the manner of Parmenides, with that completely self-consistent view of the Absolute, which alone is true. No doubt the man who is trying to view things as a whole will always be a little impatient of the specialist 'who cannot see the wood for the trees'—especially when the latter begins to deny that there is any wood at all. I believe, however, that the attitude of contempt towards the special sciences is not one that can be justified from the Hegelian point of view. Such an attitude connects itself much more naturally with the Kantian opposition—which, I suppose, is the real foundation of 'philosophic doubt'—between the phenomenal world and the world as it is in itself. The more fully we recognise that the intelligible world of philosophy is nothing but the world of experience completely

interpreted, the more shall we be led to acknowledge that it is only on the basis of the preliminary interpretation of the world by the special sciences that any real philosophic advance can be made. If, indeed, the dialectic method were a mechanical process—an intellectual switchback, as I have already suggested, on which one had simply to set oneself, and be carried along—it might well be regarded as independent of the work of the particular sciences. But I think it is only by experience—and science is an enlarged and purified experience—that we can discover the principles that are involved in the constitution of our world; and it is only by testing these principles in the interpretation of various aspects of experience that we can learn their significance and their limits. No doubt, as Hegel himself said, philosophy is apt to show itself a little ungrateful to that which supports it: it devours that on which it lives. But to devour is at least not to set aside. If the significance of the Hegelian point of view with respect to epistemology is such as I have described, there is no point of view that might be expected to encourage a more sympathetic interest in the ideas, principles, and methods of the physical sciences, though that interest would no doubt be partly a critical one. Philosophic criticism of the special sciences is apt to be too purely negative. This is perhaps a fair ground of complaint even against such a careful work as that of Stallo; and even Prof. Ward may be charged with a similar defect. It is comparatively easy to bring out the limitations of scientific ideas and methods. What is philosophically important is to combine this with an appreciation of their truth and value within their own limits. This ought to be easier to the Hegelian than to others. Others are apt to be scandalised by any principles in which there is an appearance of logical inconsistency; whereas a Hegelian is accustomed to contradictions, and knows that they merely point to limitations in the use of the ideas in connexion with which they occur.

So far I have been referring mainly to the physical sciences. The bearing of philosophical ideas on psychology is naturally more direct. It has not yet been found possible in general to separate the study of psychology from that of philosophy; and I doubt whether it would really be wise to attempt it. Psychophysical experiments and observations on children and chickens may no doubt be carried on with very little reference to philosophical principles; but, in all the more speculative parts of the study, the relation to philosophy is very close. I do not say that it is different in kind from the relation of other sciences to philosophy; but it is certainly much more

intimate in degree. Now, it is commonly thought that our modern psychology connects more closely with the Herbartian point of view than with the Hegelian; but I believe that this is at bottom a mistake. The most significant work in psychology that has recently been done in this country is, I suppose, that by Prof. Ward and Dr. Stout. Now it is certainly true that their line of thought sets out, on the whole, from Herbart; but the latest results of their studies seem to me to be far more Hegelian than Herbartian. The real significance of Herbart lay mainly in his effecting a transition from the English associationist school to the more German mode of thought. Starting with psychical atoms he sought to combine them in mechanical methods. This was no doubt interesting and led to considerable advance in the study of pure psychology, and still more in its applications to education. But it seems to me that in both directions it has been already outgrown. In particular, the recent studies of Dr. Stout have brought psychology into direct relation to the view of the universal expounded by Bradley and Bosanquet, which is essentially the Hegelian view. I notice also that some recent educational writers are beginning to recognise that the Hegelian doctrine of development is more truly enlightening than the artificial Herbartian 'circles'.

This leads me to make a few remarks on the general bearing of the Hegelian point of view on practical life. This aspect of the Hegelian teaching requires perhaps even more emphasis than any other; since it has, I think, been a good deal misrepresented. Hegel himself has been represented as a mere defender of the *status quo*—one who maintained that 'whatever is actual is rational,' and who thus, like Carlyle, turned Might into Right. His contemporary Fries, with true German thoroughness in vituperation, said that Hegel's political ideas were grown, 'not in the garden of science, but on the dunghill of servility'. There may be a grain of truth in such accusations. The two intellectual kings of Germany at the beginning of the century—Goethe and Hegel—were both characterised to some extent by a lack of sympathy with what has been known in this country as philosophical radicalism. They were, I suppose, partly influenced, like our own Burke, Wordsworth, and others, by the reaction against the revolutionary ideas that had made such a stir in France. How far this was wise in the case of any of these leaders of thought, we can hardly at this point pause to consider. All that I wish to urge is, that there is nothing in the Hegelian point of view that is opposed to any genuine

progress. If we think of man's life, as Hegel does, as a process in which the universal element in the world comes to consciousness of itself, we at once regard it as involving an ideal aim, which must progressively realise itself in history. Such a conception naturally leads to a sympathetic treatment of the past, a full recognition of the significance of what has already been achieved, and does not readily connect itself with reforms of a revolutionary character; but it is certainly as far removed from any approval of stagnation. Here, as elsewhere, the great value of the Hegelian point of view seems to me to lie in its insistence on the concreteness of the universal. Its general lesson is perhaps best expressed by saying that it teaches us to aim at wholeness and reality in life.

The most characteristically English of Ethical Systems, Utilitarianism, does not sufficiently distinguish between the real and the unreal. All forms of enjoyment are regarded by it as being in themselves equally valid. And the same is largely true of that other characteristically English theory, Intuitionism, for which we may say that every deliverance of the individual conscience has in itself equal weight. Both of these appeal to the particular, to the consciousness of the individual agent, though they do so in very different ways. The categorical imperative of Kant, on the other hand, represents the abstract universal—the mere form of law, separated from all particular contents of experience. As against all these, Hegel seeks to show the universal law in contrast with reality and as the inner meaning of reality; so as to make it appear that 'morality is the nature of things'. The modern theory of evolution does this also to some extent; but Hegel's doctrine seeks to show the ground and meaning of the process of development; and does not leave it at the sport of accident, as some modern theories tend to do.

From the political point of view, the value of this attitude shows itself perhaps most of all in its power of freeing us from such opposite dangers as those that are expressed by the terms Individualism and Socialism, Liberalism and Imperialism. I do not know that any of these terms has a very precise meaning; but they express certain tendencies with which we are all more or less familiar, and which are due, to some extent, to an imperfect way of thinking about life. There is a tendency, whether we call it individualism or liberalism or by what name we please, which seeks to leave every individual and every group to work out its own salvation in its own peculiar way. There is a great deal to

be said for it; but it often fails in practice, because so large a proportion of mankind have no real way of working out the problems of their lives, but, when left to themselves, simply drift to destruction. There is another tendency, which is known by such names as socialism and imperialism, which seeks to organise life on a large scale, fencing it round with regulations; and the rock on which this splits is that men and nations that have any force of character refuse to be run like machines. Now I know of no point of view, unless it be the Aristotelian, which raises us more completely above such opposing abstractions than that of Hegel. With him human life is thoroughly personal; but personality is the expression of a universal meaning. It is necessary for each that he develop a free personality, but this he can only do in relation to a common weal. Properly to balance these opposite aspects of life is of course a matter for the statesman and social reformer rather than for the philosopher; but it is something to have a philosophic point of view from which each side can receive its due.

But, after all, the value of a great philosophic system lies no doubt mainly in its power of supplying us with some sort of insight into the meaning of the universe as a whole. How far the point of view of Hegel furnishes us with this in a finally satisfactory form, it is hardly possible here to consider; but I may notice one point in connexion with the ultimate metaphysical significance of his system, which is closely related to that on which I have been chiefly laying emphasis, and which is often made the ground of objection to the Hegelian point of view in general. You will often find it said that in the end Hegel reduces everything to thought; that his point of view is merely logical throughout; that he practically ignores altogether the aspects of feeling and will. In this respect he is sometimes contrasted unfavourably with Schopenhauer, with Lotze, or even with Fichte and Schleiermacher. Now I do not deny that Hegel, like Herbart, may have laid a somewhat undue emphasis on the more purely intellectual or apprehensive side of conscious life, and it may well be that this has given rise to some defects in his treatment of morality and politics, and possibly also of art and religion. Perhaps philosophers, whose work consists in thinking, are rather apt in general to fall into this mistake. If Plato erred in supposing that you could make a king by dialectic,¹ it would no doubt be just as erroneous to suppose that you could make a saint or a poet by any such process, or

¹ Which, however, it is not quite fair to say that he did.

that, by taking thought, you could add a cubit to your stature, or a star to the heavens, or even a molecule to the meanest piece of matter. But I doubt whether Hegel is justly chargeable with any such mistake. At any rate, if anything of this sort is involved in what he meant for himself, it does not seem to me to be contained in what he means for me. On the whole, the criticism to which I refer appears to rest on a misconception. If the essence of the Hegelian doctrine lies, as I have sought to maintain, in its insistence on the reality of the concrete universal, it is certain that this can be found in feeling and in action quite as truly as on the more purely intellectual side of our nature. Human happiness is distinguished from animal pleasure by the presence of the universal element in it, quite as truly as human science is distinguished in this way from the vague sensitiveness of a jelly-fish. Equally does the universal element in man's life present itself in the action of a hero. We can feel and act from the point of view of the whole, just as we can think from that point of view. The 'thought' which is emphasised by Hegel is not thought as opposed to feeling and will, but thought as the conscious grasp of the universal, in whatever form it may appear ; and it is only in this sense that he seeks to interpret art and religion and morality, and the world as a whole, in the light of thought.

I have now explained to you, as well as I am able, what I believe to be the real significance of the teaching of Hegel, in its bearings on some of the leading aspects of philosophic study. Its value seems to me to lie, like that of the philosophy of Aristotle, much more in the point of view than in the system. I suppose there is no one at the present time who accepts the Aristotelian system ; but Aristotle's ethics retain almost as much vitality for us as they ever had ; and the same is to a considerable extent true of a large part of his work in other departments. The point of view from which he approached things was one that enabled him to deal with them in a comprehensive spirit, and to gain a real insight into their most essential features ; and for this reason his work is in the main a possession for all time, though the more specific features of his doctrine have largely lost their interest. I think it very probable that the same may in the end be true of Hegel. It seems possible already to detect elements in his system that are merely of an accidental character, due to the special tendencies of his time or to his own more individual interests. But I believe that when all these are cleared away, it will remain true that he, more than any other in modern times, has provided us with a

comprehensive point of view, within which we may go on working at the special problems of philosophic study, with a reasonable hope that what we thus do will not be altogether in vain. It is at least one of the great merits of his position, that there is plenty of room in it for growth.

IV.—CHOICE AND NATURE.

BY EDGAR A. SINGER, JR.

1. *Method.*—In so experienced an age one can hardly beguile oneself into a sense of the newness of one's reflexions. It is with something of regret for a bygone freshness that Lucretius's eager lines come back to us :—

“iuvat integros accedere fontis
atque haurire, iuvatque novos decerpere flores”.

Nor has the pleasant weariness of completed labours taken the place of the beginner's zest. We can count scarcely one question settled, one finished task : our philosophic inheritance is a tangle of opinion, to unravel which is a labour greater than all the rest. Yet if the past is to repay in enlightenment what it has cost in disillusionment we must *make* it teach us. This is our modern problem, and the nature of the task has, to some extent, dictated the method of its accomplishment.

The history of philosophy is itself a philosophy, and to develop its method has been the first interest of our century. Finding conflicting opinion, this philosophy has sought underlying motives, and giving play to motives, it has enticed conflict into contrast. Dwelling on antitheses, it has forced history to take on a dialectic form, and in expressing the truth grasped, has pointed neither to extremes of doctrine nor to “happy means,” but to the continuous unfolding of the story. Thus it has made use of the very discord of opinion to teach the lesson of experience, and as part of the lesson learned has ceased to be anxious for the fate of its “last word”. It is in the spirit of such a method that I would approach the old problem of the relation of Choice to Nature : it is because the problem is so old that I venture to attack it.

2. *Progress, Determinism and Tolerance.*—To begin as far back as we may : the more primitive the intelligence we examine, the more do we find it impressed with the caprice of detail in Nature, and the more ready does it show itself to see in this lawlessness the play of imagined choices. To

the savage,—yes, to the cultivated Greek (and perhaps to the larger portion of the civilised world of to-day)—it is not only fellow-man and fellow-animal that behaves in an unpredictable way, but the tossed divining stick, the trickling blood of the sacrifice, the tea-leaf floating in the cup. These seeming chances are interpreted as choices: they are given an oracular meaning, and are not one with that routine in which the stone always falls to the ground, the arrow always flies toward the mark. On the other hand, the farther back we go in any civilisation, the less room do we find set apart for the play of opinion. A statement is either true or false, an action good or bad; there is a vanishingly small region within which different interpretations of the same facts are allowed to abide together in peace. In a word, primitive thought is at once fanciful and intolerant.

Progress is understood gradually to invert this state of affairs. With expanding science the region of indeterminateness shrinks, with growing experience reflexion is forced to admit many interpretations of the same range of phenomena: choice vanishes from the midst of the Nature described and reappears in the function of description. Science and tolerance go hand in hand.

But our first satisfaction in this amicable relation between accurate knowledge and free interpretation gives way to a sense of confusion when we try to establish the line that divides the two domains. Science appears to be tolerant only of such beliefs as are incapable of being confirmed or refuted by its methods. (For the unwillingness of science to pronounce in favour of conflicting theories in the absence of a crucial test is not tolerance toward different beliefs, but an abstention from belief. Nor does science merely permit or advise such suspension of judgment, but commands it, frequently in terms that do not smack of tolerance.) Religious faith, moral conscience, æsthetic appreciation have claimed freedom from compulsion, and science has frequently admitted that its methods conduct to no conclusions respecting the spiritual, the good, the beautiful. But where these claims have won the day they have taken their stand on the ground of common ignorance. Science has indeed been their useful ally in forcing ignorance to recognise itself; but beyond the confession of insufficient evidence science cannot go and its so-called tolerance does not extend. Within the region which this confession affects, science, once more, can only abstain from belief: it is not freedom to believe but freedom to doubt that it champions, and in the face of doubt there is no more room for choice than in the presence of the most brutal fact.

Before those who really claim the right to believe in unsupported possibilities, science can only plead its inability to grasp their meaning. "Either," it says, "your so-called beliefs are conceivably capable of confirmation or they are not. If they are, they await the event to be confirmed or refuted, as my doubts await it to be resolved. If they are not, but pose as faith in bare possibilities, they escape all chance of destruction by abandoning every vestige of content."

So the tolerance of science toward parts of experience that lie beyond its ken is an empty concession. For the only regions to which it could apply turn out to be void, or else, after all, to be remotely within its own sphere. Choice of interpretation respecting Nature vanishes as completely as caprice within Nature,—unless indeed the choice resides within the bosom of science itself.

3. *Tolerance and Subjective Choices.*—If the tolerant consciousness were willing to accept the dictum of science respecting it, the history of philosophy would end in a frank empiricism. Tolerance would call itself scientific reserve, and the only choice remaining to us would be that of acting at a risk or abstaining from acting (equally at a risk), in the face of conditions whose outcome was veiled by our ignorance. (Such reactions have no interest for us here, for the decision made in unavoidable ignorance and forced upon us by the course of events can neither be wise nor foolish, and lacks the attribute of "oughtness" that we are investigating.) But to such empiricism the claimant to the right of free opinion has an objection that recurs again and again in the history of reflexion. "If," he retorts to science, "if every judgment were a bare statement of fact, then the weighing of its truth must, as you say, await the event respecting which the assertion is made. But there is an extensive class of judgments which do not pretend to be statements of fact, and whose truth rests on quite different grounds. It lies with the individual both to make these judgments and to make them true. Foremost among them are just these religious, moral and æsthetic appreciations of the world. Here the individual must be the final arbiter, and tolerance is more than a confession of ignorance, it is a declaration of independence."

Such is the doctrine sometimes called "indifferentism" and we must estimate its historical significance. But because religious conviction expresses itself but vaguely (when it does not, as in the historic creeds, actually make statements of fact) and because the cry for moral liberty may not seem quite sincere (for does it not also call for social laws?),

we shall confine our attention to the case of æsthetic appreciation. Here the following questions arise: Does the individual mind enjoy a freedom in ascribing beauty to the facts of Nature which is denied it in judging these facts themselves? Can the adjectives true and false be attached to the judgment of beauty at all? If so, what lies in the meaning of beauty that makes the truth of æsthetic appreciations so different in kind from that of plain statements of fact?

The first historic motives for a tolerant attitude towards appreciations of beauty are simple enough, being of the kind that express themselves in the old saw "*De gustibus*". You pronounce Mona Lisa beautiful: I call her plain—what is to be done about it? If it were a question of proportions we could appeal to the foot-rule; but that would leave the matter of the harmony of those proportions untouched. You cite Pater; I retort, "He is only a third individual". "But," you urge, "he is a judge." To which I may make one of two historic replies. The first defiant: "Who made him to be a judge over us? The individual man is the measure of beauty." The second humble: "I do not pretend to be a judge of beauty, I can only tell what I like".

According as one or the other of these replies is made, beauty is given one or the other of two meanings between which the concept has always oscillated. In the first case it is frankly identified with a subjective liking which the judgment "this is beautiful" confesses. In the second case it is admitted that one individual may be wrong, another right in his estimate of beauty: there is such a thing as "correct taste" and "experienced judgment," and in so far the appreciation of beauty stands on a footing with the estimate of size or the description of colour. We are less interested in determining which of these meanings corresponds to the place that the judgment of beauty occupies in a given culture than in asking what effect either would have upon our notion of the truth and error of æsthetic appreciations. And I think it will be seen that from neither point of view does the judgment of beauty possess peculiarities unshared by the strictest statement of fact of which science is capable.

For if, in the first place, only subjective liking is in question, there is no sense in which the avowal of such liking can be true or false unless it be the sense in which it agrees or disagrees with the facts of the case. If stress be laid on the subjectivity of these facts and their inaccessibility to any but the individual's own observation, it may equally well be pointed out that the whole structure of science is built of

just such individual observations. My micrometer reading is neither more nor less accessible to you than my liking for port wine or Beethoven sonatas. And, in fact, the historic outcome of the motives that lead one to say "Man is the measure of beauty" is the doctrine that "Man is the measure of all things". If this is not wrong, it yet does not in the least interfere with the construction of a confessedly objective science; neither, then, ought it to be urged against the objectivity of beauty.

It is not, however, for a theory of beauty that we are looking, but for an example of a judgment whose truth is constituted by the individual that pronounces it: if not the ascription of beauty to an object, then the avowal of liking for it, and if not that, then any judgment in which the subject seems to be sole arbiter of the truth of his own statement. So that we may at once take the highest possible ground and ask whether any expression of opinion can refer to a "last seeming" so completely subjective that the "subject" has the right to say what he will about it without risk of error.

The historic pursuit of such a type of judgment conducted the Sophists to "immediate certainty" as furnishing the final illustration. Only, it may seem odd that we should here present such certainty as a type of judgment which, all in being absolutely true, is still absolutely free. Is it not the proper historic function of this judgment to stand for that which is absolutely forced upon the subject as a bare fact of experience? I answer, the paradox goes with the paradigm, for those philosophers who with a very temerity of caution confined their estimate of truth to immediate certainty, also furnished to their successors the "horrible example" of completely wayward thinking. Nor is this an historic accident; it belongs to the nature of the "immediate" to present itself in the guise of just this contradiction: in fact it is the disorder from which it always suffers and to which it at last succumbs. For exactly that inaccessibility to more than one point of view which is supposed to shield "immediate certainty" from the danger of contradiction also robs it of the chance of confirmation. The assumption that the case can never occur again *does* make it quite indifferent what judgment is passed on it. But a little reflexion will show that the only instance in which $+a = -a$ is that in which $a = 0$: the only absolutely free judgment is the meaningless one. Upon Heraclitus follows Cratylus, wagging his finger in mute irony, and upon Protagoras follows Gorgias, pitifully complaining that nothing

is, but that if anything were we could not know it, and if we knew it, could not tell.

Meanwhile the "subjective" and "immediate" must be given some place in experience, and they do seem to carry with them certain exemptions from outside criticism. The humility that makes no pretension to "knowledge" of beauty, but contents itself with an avowal of "liking" must yet stop somewhere. It would take it to be a poor return for its yielding disposition did the masterful critic venture to doubt the genuineness of the liking. "What impertinence," it would say, "to tell me that I do not know my own mind." And yet it may be that the critic's attitude is impertinent rather than meaningless. When one is young one feels more secure in the secret possession of a unique personal experience than when, after longer contact with life, one has formed the habit of "seeing through" others and has had the shock of being "seen through". And I am not so sure that the experience of philosophy has been different from that of each individual. Gorgias found that the subjective did not thrive on an *incommunicado* regime, and it is not unnatural that Hegel should insist on the part played by other individuals in forming the nature of the self's most intimate possessions.

However that may be, I think the dialectic of history has sufficiently emphasised the relativity of the distinction between the subjective and the objective. In so far as a judgment lays claim to truth, in so far does it pretend to have grasped an objective reality, and in so far must it be capable of confirmation or refutation from an indefinite series of other points of view. The average of these observations (though never quite static) is the only result to which either the connoisseur of beauty or the scientific investigator can point as to the fact he is in search of. In the comparison with such an average the truth of the "subjective appreciation" appears—its freedom disappears. That which has led history to separate the truth of a judgment of beauty from that of a judgment (say) of size is the relatively large "variable error" of the former which masks the nature of the average. We have not yet found a type of judgment that does not involve a question of fact, and statements of fact are capable of a continuous treatment throughout the whole range of experience.

What then is the outcome: do we relapse into the empiricism against which the protest of tolerance is directed? That depends upon the way in which the conclusion of empiricism is stated. If, as against the tolerance we have

been examining, it urges that the answer to every meaningful question must be wrung from experience and hence must involve a question of fact, I think history forces us to accept the dictum. So that if any class of judgments involves the exercise of a choice, it is because the statement of fact itself depends on choice. But if in insisting on the necessity and sufficiency of the "scientific method" empiricism views this method as excluding all choice on the part of the describer of Nature, it goes farther than we are yet justified in following it, and its conclusion must be tested by an examination of the momenta that contribute to the growth of science itself.

4. *Science and Objective Choices.*—The form that our present question must take is determined by our past admissions. We have accepted the ideal of science: the image of Nature with which our description presents us must be that of a completely determinate process, and we have agreed to admit no choice or caprice within the phenomena of Nature which would set a limit to the pursuit of this ideal. We have asked whether in some of its aspects a determinate Nature might not admit of more than one description. And we have concluded from the continuity of the concept of truth that any choice which may belong to the function of describing must be traceable in all the ways in which this function could be exercised—in the scientific formula as well as in the ethical or æsthetic appreciation. So that our final question is this: taking scientific description as typical of all description, is there only one, or are there more than one way in which the scientist may present Nature as a uniquely determinate process? If more than one, and the scientific describer is constantly called upon to choose from among several, is his selection capricious or can we discover a principle by which it must be guided if his description is to be true, the Nature it portrays real?

Our first impression of the scientist is of one thrust into the midst of Nature to observe and to record. Nature flows by him as a stream of facts and it is for him to map the currents: the laws thus formulated are no less facts. "Die Natur ist nur einmal da" and he whose sole function is to tell what is "there" can arrive at but one result: it in no wise rests with him what this result shall be.

In this mood we think of the scientist as coming in possession of a given fact by a single observation, and as recording his observation in a categorical judgment. He measures a rod and then announces, "This rod is 1 cm. long". The laboratory observer himself, however, does not

view the matter in this way. What he calls a fact is never the result of a single observation, and his record does not take on a categorical but a disjunctive form. "This rod," he will say, "is $(1 \pm \lambda)$ cm. long": *i.e.*, its length is either $(1 + \lambda)$ cm. or $(1 - \lambda)$ cm. or lies between the two. It is not merely that the scientist is cautious and repeats his observation "to make sure"; but that he is actually without means of defining the "real fact" he is in search of save in terms of an average of observations with a zero "probable error" attached. I need not point out that a zero probable error is from the very nature of its formula unattainable in a finite experience. Hence the probable error and the indefinite series of points of view whose variation it summarises is part of the scientist's meaning when he speaks of a "fact". The disjunction of ignorance which the probable error expresses in a quasi-categorical form is essential to any image of Nature that science can evolve.

I should like to dwell on the wealth of this concept of "probable error". If I am not mistaken all the disjunctions of ignorance at which the stages of scientific progress pause could be put into this form. Were we suspended in doubt between a corpuscular and an undulatory theory of light? Then it was because the probable errors of our estimates of the velocity of light in media of different density overlapped. So, too, the probable error is the means of defining the region within which certain "neglects" that science practises are permissible. If we analyse the meaning carefully, the sense in which the "law of inertia" which seems to refer to a body "left to itself" may none the less be applied within a world in which no body could be "left to itself" will be seen to depend upon the permissible neglect of errors of detail which fall within a "probable error" of result—an error whose magnitude is independently fixed.

I mention these matters for two reasons. First, because since science must always present us with disjunctions, it seems always to be leaving us an alternative which makes a choice not only permissible but imperative. And some recent philosophers have held that the psychological factors that determine the choice of the individual scientist at such junctures may have a permanent influence on "the result".¹ Second, because other philosophers have contended that since such axioms as Newton's "law of inertia" cannot be literally illustrated in Nature, therefore science "abstracts" from Nature and gives us, instead of a true image, an "ideal con-

¹ James, *Will to Believe*.

struction" on which it would be unsafe to form our *Weltanschauung*¹. But when we see that all the disjunctions with which science presents us are really of the nature of that "probable error" which must attach to any statement of fact, does it not seem that we have already taken account of these "psychological factors"? Are they not among the very causes which lead to variation between observers and of which the "probable error" gives a summary statement? They no doubt play their part in the drama of science, but they belong in the chorus. For the rest, I am here only stating in another form the view already accepted that the disjunction of ignorance is no ground for a play of choice, but only for a wavering of doubt. And as to the "abstractions" of science, I can only find suggestion of them in the careless abbreviations of the scientist and in the unfair interpretations of the critic. Science may be an "ideal construction" but its ideals do not involve the neglect of facts.)

I must leave this subject of the "probable error" which has helped us to pass beyond the impression that a statement of fact is the categorical utterance of an individual observation and enabled us first to detect its disjunctive character, then to trace in the result the contributions of a society of observers. Even now we have not exhausted the meaning which a simple statement of fact has for the scientific observer. If the "probable error" is of the nature of a disjunction, so the concept of the "constant error" points to a *condition* involved in a statement of fact. "This rod is indeed $(l \pm \lambda)$ cm. long, but only *if* the temperature be t degrees, the stress f dynes, etc." Omit these conditions and the statement is meaningless, misrepresent them and, however faithfully it may record observations actually made, it is false: it is affected by a "constant error".

From this it would follow that the very simplest statement which science can make about Nature—that from which all its generalisations start, the record of an individual fact—must take on a hypothetical form. Yet it would seem that this much of the naïve attitude towards science from which we started must remain true to the end: namely, that the account of Nature which interests us must finally be expressed in categorical (or quasi-categorical) judgments. We want to know what has happened and most of all what will happen, and cannot remain eternally satisfied with the knowledge that if a should come about then we must look out for b . And since science undertakes to satisfy us on this score, since

¹ Ward, *Naturalism and Agnosticism*.

it does make categorical predictions, the question naturally arises: What has become of the conditional clauses?

The answer is not far to seek. Neglect such conditions as cling to every statement of fact science cannot without loss of meaning: absorb them in the categorical judgment itself it can and does. And that by a very simple device: the setting up by convention of so-called "standard conditions". Now as regards these conventions there are several things to be noticed. First, they are said to be "arbitrary," which does not mean that they are unmotivated and capricious, but only that they result from a choice. Second, this choice is social, not individual, and constitutes the "universe of discourse" within which the individual judgment is meaningful and true. Third, this choice selects from among several alternative accounts of Nature each of which presents Nature as a thoroughly determinate process. Finally, no categorical account of Nature, *i.e.*, no image of Nature "in the concrete," can be given which does not embody a series of such choices.

But in spite of the fact that the Nature we point to with hope or with fear is always a Nature described, it is generally felt that there is a difference between Nature-in-itself and the description we give of it. However completely the choices we have mentioned may be embodied in the "universe of discourse" yet this can never be identified with the Universe: the conventions are purely "nominal". "Il y a le nom et la chose," says Montaigne, "le nom ce n'est pas une partie de la chose, ni de la substance: c'est une pièce étrangère jointe à la chose, et hors d'elle".¹

Now it is quite true that the choices and conventions of which we have spoken are in the nature of definitions. In the example of length we were merely watching the growth of the definition of length to meet the needs of a more refined description. So that we may pass at once to the general question of the definition or, let us say, of classification. Then it will be seen that the motives which inspire the preceding paragraph are those which lead Kant to treat definitions as analytic judgments and, being such, as essentially different from any other *a priori* factors of knowledge which may really help to "constitute" experience as we know it.

There is no doubt that this insistence upon the triviality of definition and classification in our system of knowledge strikes a sympathetic chord in the common understanding,—one which responds in terms of such saws as "Soft words

¹ Montaigne's *Essai* "de la Gloire".

butter no parsnips" or the poet's line "A rose by any other name would smell as sweet". At the same time we must not forget that the very opposite point of view has received historic expression: *e.g.*, in the mot "La science est une langue bien faite". Now, as has been said in the introductory paragraph, the whole history of philosophy is a dialectic growing out of just such antitheses as the one before us. And generally we have learned that the contrast arises from a breach of continuity, to re-establish which is to grasp the truth of the situation. Just so here: it is no doubt always possible to distinguish between the facts of Nature and a classification to which they are subjected. If it were not for the indifference of such facts to the various ways in which they could be classified, the problem of arrangement would not present that element of choice which we have insisted upon. But to be indifferent toward certain alternative classifications is not to be independent of all classification, and it must always be equally possible to show that these facts presented in Nature are themselves the resultants of finished classification: if they were not they could not be "presented". Those whose attention is attracted by the factual aspect of Nature fly to one limit: "we do not really know Nature until we get at the 'solid' facts, untainted by arbitrary arrangement and eternally indifferent to the way in which we classify them". Those who recognise the important part that classification plays in the final image of Nature rush to the other extreme: "knowledge is nothing but the game of arrangement". But if there is one thing that the dialectic of history seems to have established more firmly than another it is that, not at the "limits," but in the continuous series which defines them, lies the truth. Whatever is required to account for the way in which one of its stages follows on another is essential to the nature of experience. And since at any stage of our growing knowledge at which we try to tell what Nature is, the describer is presented with a choice, and since no stage can be found which does not embody past choices, I take it that this series of choices is involved in anything we do or can mean by Nature.

5. *The Choices of Science and Their Truth.*—It is not well that a philosopher should be let off with a generality. If he has really caught a fragment of the truth, let him show where it fits into the scheme of experience. I shall try to do this with respect to the choices of science by showing where in the history of science such choices have been exercised, and how they have gradually moulded the meaning

that we now attach to the term Nature. But to illustrate systematically would be to write a history of science, for we have said that such choices must be exercised continually and work gradual transformations. The best that can be done in brief space is to look for the most striking instances, and to lay them before the reader with little comment. In each case, too, we may answer a question raised at the beginning of our search into scientific method by pointing out that these choices have not been exercised capriciously, but according to a given principle. Science has regarded one alternative as preferable to another and has treated the ground of preference as a ground of truth. And when we have finished I think we shall see that the exercise of such choices is the only factor in experience that has any claim to be called *a priori*: whether or not we retain for them the term analytic, we shall at least have grasped all the motives that have led to the doctrine of *a priori* synthetic judgments.

Since we have stated the function of choice to be exercised in the business of classification, we naturally turn for our first illustration to the science in which the problem of classification has received the greatest recognition. The day is not long past when the main question of biology was that of "true orders". The biologist of this time felt that it had a meaning to ask whether a given scheme of classification were true or false. "I will not give my reasons," writes Linnæus, "for the distribution of the natural orders which I have published. You or some other person after twenty or fifty years will discover them and see that I was right."¹ It is the language of the "realist" that looks for classes *in re*—a language that we still speak when we distinguish between "artificial" and "natural" systems of classification. And yet it is clear that there are many consistent classifications to which the facts presented to Linnæus were susceptible.

The period that witnessed this struggle after "true orders" culminated in the genetic classification of evolutionist biology. Is this a truer arrangement than any other consistent grouping that could be devised? I only point out here that the way in which a classification is made determines the next question that the scientist asks. The question may be "put to Nature" and receive an empirical solution; but it cannot be answered until it is asked. Now the peculiarity of the genetic classification was that it led to a form of question which did not apply to biology alone. Other principles of division would have been as consistent with the facts given

¹ Romanes, *Darwin and after Darwin*, i., 26.

to them, but respecting the facts *resulting* from them we could not have asked: "Are they the results of development?" The search for the "mechanical factors" of evolution would never have troubled us, nor engaged us with its broad promise of unified sciences. And yet it is the insight into just these analogies which, as the patient Kepler said, leads us into the arcana of Nature. When we ask what Nature *is*, it is in terms of such insights we are answered. It is in this sense that a classification can be "true to Nature," it is in this sense that classes can be said to exist *in* Nature. One is all the more a realist for being idealist enough to see in Nature the embodiment of choices.

Let us turn to another instance and another science. We shall see the "analytic" aspect of choice gradually slipping away; for in the case we now take up historic science did not even notice that its problem had an analytic side, but supposed itself to be facing a bare question of fact. I suppose most will remember to have been taught that modern astronomy dates from Copernicus's "discovery" that the earth revolves around the sun and not *vice versa*. Huxley speaks of the old "geocentric system of astronomy with its eccentrics and epicycles" as "an hypothesis utterly at variance with fact".¹ And it is common enough to hear the Church of the period upbraided for flying in the face of facts.

Yet when one's attention is called to it, I fancy no one will fail to justify Mach's contention that the Copernican change of standpoint was only a change of standpoint and raised no question of fact.² The paths of the planets are necessarily describable with respect either to the sun or to the earth as origin. The question of the origin of coordinates is a question of interpretation, and it is decided in favour of relative simplicity. The "truth" which this advantage seemed to impart to the Copernican point of view appeared to Huxley to have the same cogency to force acceptance as has a fact to compel belief. Hence he regarded the question of origin, not only as one capable of a right and wrong answer, but actually as a question of fact.

I might recount the sequel to this historic incident, how the change of origin effected by Copernicus made Kepler's questions possible; how the resulting laws made it possible for Newton to ask the same question of the moon that Galileo asked of falling bodies and Huygens of a ball swung

¹ *Progress of Science*.

² *Mechanics in Its Development*, 232.

on a string; how these general views of motion suggested the question: is the whole system of visible motions a self-repeating cycle?—and how, on the assumption (afterwards empirically verified) that it is not, the concept of motion is included by Kant and Laplace under that of growth: until at last our image of Nature includes an evolution of mechanical processes, as well as the mechanical processes of evolution. Each stage would be seen to depend upon certain choices of arrangement, and a history of science written with these in view would be the realisation of Hankel's ideal: "Die Geschichte einer Wissenschaft kann selbst Wissenschaft werden".¹

But it is better to have exhausted the significance of a few illustrations than to have squandered many. I have been laying emphasis on the *a priori* part of our thinking, and the reader may have felt that justice has not been done to the *a posteriori*. Let us put the feeling into a question. The results of Kepler and Newton led to the discovery of a new planet whose behaviour was in accordance with their predictions. But suppose accident were to lead to the discovery of another which did not conform (say) to Kepler's laws, should we not reject those laws? Are we not then dealing with descriptions of Nature whose truth reduces to an agreement with the facts?

That every judgment capable of truth or error involves a question of fact I not only admit but have been at some pains to defend: that it *reduces* to a question of fact I cannot see. No doubt we should reject a scientific law in the face of an exception; but the form in which we should express our new knowledge is not uniquely determined. Our first step is to replace a universal affirmative proposition with an exceptive; but it is not our last. And why? The determinateness of our image of Nature is not interfered with by stating a law and its exception. "All planets except X obey a certain law and X obeys another": the space distribution of planets at a given instant of time is determinate enough. What we have lost is the simplicity

¹ I should like to have included among these illustrations the much disputed problem of geometrical axioms. For I think the question as to what experiment proves respecting the truth and the error of these axioms depends upon what we will let it prove. If they are *a priori* they are so by command, and it is for this reason and not because of a happy chance, that the true axioms are the simplest. The matter, however, proved too subtle to be condensed into a paragraph. If the reader is interested in this point of view I may refer him, as to the treatment most closely in sympathy with it, to Poincaré (*Rev. de Met. et de Mor.* 1895, 631; 1899, 251; *Monist*, 1898, 1.).

of our formula, and it is because we choose that our description of Nature shall be simple, that we reject a formula which permits of exception as not representing a law of Nature. We assume that the description of this determinate flow of facts we call the course of Nature is capable of complete expression in universal judgments. What right have we to proceed on such an assumption? Is it that we detect on the part of facts an eagerness to oblige? They are not noted for such complaisance: philosophers have even been known to call them "brutal". Is it not rather because we have the remaking of the facts within our power? And this by reconsidering an old choice of classification: in the resistance that facts offer to our desires is always to be detected the opposition of our old choices to our present needs. It is for this reason that the search for a universal formula for Nature is always bound to succeed.

For example, Newton's law of universal gravitation is actually subject to many exceptions. Not every body of matter attracts every other with a force proportionate directly to the product of the masses and inversely to the square of the distance between their centres of gravity. This is only true in case the bodies are without electric charges, do not possess magnetic poles and have other negative properties. So far science has been content to state our physical laws in terms of exceptions, and instead of a single formula for Nature we have several. The image of Nature resulting is determinate enough save for "probable errors". But modern analytical mechanics is not satisfied with mere determinateness: it demands simplicity. Consequently we find it throwing the mass of phenomena into a single formula—the generalised Hamiltonian principle or the generalised Lagrangian equations.¹ It is not pretended that this is more than a "formal" transformation of *all* the formulæ of physics, for it does not really reduce the number of "dimensions" (since the same term in the formula has different though analogous meanings within different classes of phenomena) and it introduces no new determinateness. For that reason such transformations must always be possible. But what is the next step? By treating the system of bodies *as though* it included concealed motions we manage (perhaps after the manner of Hertz) to express the different determining properties of the bodies in terms of the velocities of these motions. Now we have really reduced the number

¹ The most satisfactory account of this process appears to me to be that given by Hertz, *Vorlesungen über die Theoretische Physik*, i., 2.

of dimensions to mass, space and time, but we have not reduced the indeterminateness due to "probable errors": we have introduced no new observation of facts. And what does this hypothetical "*as though*" mean? For a system to *have* a certain constitution, and for a system to *behave as though it had* a certain constitution, mean the same thing: the moon behaves as though it had another side. All that we have done is to introduce a new classification which has the conditional flavour of all classifications, a flavour that only fades away as the classification ceases to be new. We no longer state our law in terms of "all bodies" in Newton's sense, adding exceptions that apply to different *kinds* of bodies; we state our formula in terms of mass, space and time. The kinds of bodies and motions are characterised by the different degrees in which these dimensions belong to them, and Newton's view of the situation appears as a special case, along with its exceptions, the other special cases. Can the facts obstruct such progress? I think not: a classification that possesses maximum simplicity must always be possible, and if at any stage new observations lead to exceptions, these do not *force* a rejection of old choices, but they *invite* it. "The order and regularity of the phenomena we call Nature, we ourselves introduce into them, and we should never be able to find it there had we not first put it there." Thus did Kant from a somewhat different point of view express much the same thought.

6. *Nature, Choice and Will.*—It would seem, then, that when we wonder at the order and simplicity of Nature, we wonder at our own handiwork as Nature builders—"The heavens proclaim the glory of Kepler and Newton". And if, with Omar, we find the scheme of things "sorry," can we not "shatter it to bits and then remould it nearer to the heart's desire"? We not only can do so, but constantly are doing so—it is the function of science. Only, the "heart's desire" must not be unprincipled. In the historical illustrations we have seen that the choice exercised by the describer is regarded as true only in so far as it abides by a certain principle, which we might variously call the principle of maximum simplicity, economy or unity. It remains to be shown *why* this choice should be regarded as true.

In the first place it will be recognised that the demand for maximum unity expresses a strong intellectual need. But it is not the only need of our nature, it is not shared by every one,—as witnesses the attitude of the Church toward Copernicus. And even supposing it the predominant need, why

should it not determine the utility rather than the truth of our description of Nature?

We have seen that the choices which play a part in the constitution of Nature are exercised in the function of classification. Now there is only one sense in which we commonly apply the term error to a classification,—it is that which we illustrated in the case of “constant error,” that which permits us to speak of a wrong definition. Error in this sense must always involve the contrast between an individual and a social choice. If then we have a right to gratify any need of our being in exercising the choices we have been considering, it must be because the need is universal,—it is a principle that expresses a universal will. But there are many needs whose wide distribution throughout society we can discover by observation. If the criterion of universality is to be empirical, there is no reason for satisfying the intellectual rather than the æsthetic or “spiritual” needs,—and this is the position taken by some modern writers.¹

But all through our study we have seen that the will which is reflected in a true image of Nature is not expressed in a mere *consensus gentium*. We justify Copernicus although he was a minority of one: we condemn the Church that stood for the voice of the people and the voice of God. The will to which Copernicus appealed was broader than his age,—and the will we are now in search of must be sought *sub specie eternitatis*.

The search for the absolutely universal will is one that has been attempted before,—at least the method of search has been defined. For if we are not to stop at an empirical generality but to find the principle of choice that would be exercised by all describers in the face of all possible experience, it is evident that we seek the principle without which no description, no experience and, consequently, no Nature is possible. We are faced with the old problem of deduction as it appeared to Kant. Our demand for a universal will is not a little like his motive for seeking “categories,” and we may rest satisfied with expanding Kant’s method to fit our needs.

The conclusion of Kant’s deduction is that the trait of experience without which there could be no experience, and yet which does not belong to an aggregate of bare facts, is unity; and in this unity is reflected the activity of a describing consciousness. We have arrived at the same conclusion in our own way. But Kant’s attitude toward experience

¹ James, *op cit.*

leaves it, in several respects, static. Its movement is a flow of facts: the "forms" into which these facts fit are ready-made categories. As a result the forms of thought "constitute" experience in giving to it its unity; but the evolution of unity, the struggle after maximum unity, falls under merely "regulative principles". Thus a permanent separation between the *truth* and the *value* of description is allowed.

It may be said, I think, that the outcome of post-Kantian thought is a transition from a static to a dynamic attitude toward experience. Its "flow" is no longer a mere flow of facts, but an evolution of interpretations. It is such evolution that Hegel is constantly dwelling upon (*die Bewegung*). From this point of view, it is not the unity of our thought but our thought's struggle after maximum unity that constitutes experience what it is. It is this desire for maximum unity that we struggle to satisfy and the gratification of which constitutes the truth of an interpretation. The desire is, of course, a fact of our experience, but it is to be distinguished from other empirical needs in that the right to gratify it is to be deduced from the meaning of experience itself, within which it is the absolutely universal principle of choice. It is this that makes maximum unity a true not merely a useful, a constitutive not merely a regulative principle. I need not point out that all our illustrations have been so many scenes from the drama of human thought struggling after maximum unity in the building of the world of Nature.

But now if the choices that are not determined by fact are determined by the principle of maximum unity whose claim to truth depends upon its necessity to the very meaning of experience, has not individual liberty to satisfy individual need completely disappeared? And if so, what has become of the illustrations cited in this very paper in which the individual,—yes, the larger part of society,—rejected this universal principle? The Church opposed the astronomical scheme of Copernicus, and yet the Church not only meant something by its attitude but still continues to live and to function.

It would be interesting to show the difference between the sense in which the "unity of apperception" was felt by Kant to be a universal and necessary condition of experience, and that in which maximum unity represents to us the will of a universal society. But I must confine myself to an example which will tend to show the kind of liberty an individual may possess to resist a law without which the society of which he is a part and to which he owes his own nature could not exist. I take the specialised type of experience

we call "life". Life is what it is because the living being is essentially a struggling being. From this it does not follow that every living being enters consciously into the struggle. There are the fortunate ones who toil not neither do they spin, and yet continue to live. To them struggle may seem a mere accident of life and not its essence. But we must see that they could not thus live were they not part of a society which is a struggling society and heirs to the ages that were ages of conflict. They are made in the image of the surviving fittest, and lazy as they may wish to be they cannot give up all the functions made necessary by the struggle and continue to live. So far as they do give up the struggle, they do *give up*, i.e., the very definition of their apathy is couched in terms of the strife they shun,—and in shunning, recognise.

So with experience as a whole : the individual has a certain liberty to decide untruly. Whether from indifference (the apathy of surrender), or from pride (the self-will of a romantic genius that a Nietzsche expresses), or from prejudice (the bigotry of the Church in the preceding example), history is full of instances of the denial of the will to experience. But this denial carried to the limit means extinction, and carried part way means partial stagnation : experience may die by inches. In all cases its essential characteristic is denial or revolt, and that recognises the nature of the law against which it revolts. It need scarcely be remarked that this individual may be a very large group. The human race may for ages be lethargic. But the dark ages contain the germ of an *Aufklärung* and moreover are not themselves completely without light.

From all this the relation of Nature to the individual desire follows of itself. We have represented the individual as faced with a group of facts ; but not of bare facts, for in so far as these have even enough meaning to be pointed out as facts they bear the traces of description with all that this implies of past choices. So that at no stage is he presented with a situation so purely factual that it cannot be altered by re-interpretation. Observation has, of course, an important place in his life ; but his experience is not increased by bare additions. The real importance of observation is to serve as the stimulus to new interpretations. These interpretations we have seen were indeterminate save for a principle of choice not yielded by the facts themselves. Yet this choice is not the individual's own ; but that of the society to which he belongs. Nor is this society that of his day and generation, for that is only a larger individual, but the universal

society to contradict whose will is to destroy the meaning of experience. Such a will dictates a principle of choice that gratifies a desire which an individual may well possess. In so far, then, as the individual desires what all must desire if they would have experience, Nature as embodying our interpretations must yield him satisfaction. But in so far as the desire is purely individual, Nature offers no guarantee that it shall be gratified.

As the type of universal desire we have taken maximum unity—a rather cold, intellectual one, it may seem. It would be interesting, did space permit, to consider the question "Are not the demands for the goodness and beauty of our world involved in this?" It may be that the concepts of unity, goodness and beauty are more closely allied than their frequently contradictory expressions would lead us to suspect: history is full of attempts to identify them. The old scholastic formula "*Quodlibet ens est unum, et verum et bonum*" may be profoundly true. For the present, however, I must leave this question untouched.

V.—CRITICAL NOTICES.

Foundations of Knowledge. In Three Parts. By ALEXANDER THOMAS ORMOND, McCosh Professor of Philosophy in Princeton University. London: Macmillan & Co.; New York: The Macmillan Company, 1900. Pp. xxvii., 528.

THE author of this lengthy treatise has hardly taken sufficient care about the form in which he has put before the public what is clearly the result of much thinking and of a serious and laborious effort towards a constructive philosophy. Misprints are numerous, and only six have been noted in the list of "Errata": others quite as glaring have been overlooked. Thus, of three words in Greek type which occur in the volume (without any special necessity), one is wrongly accented (*θεός* on p. 10), and two are without accents ("λογος from λεγω" on p. 260, and also in the index). Some other Greek words are given in Italic characters. Among these we find "*pon sto*" (p. 105). To St. Augustine is ascribed a treatise "*Contra Academicas*" (not italicised, p. 333). There are misprints in the titles of the works of M. Fouillée and M. Tarde which are referred to on pages 81 and 291. (M. Fouillée's name is put right in the "Errata".) Other examples are "Loyd Morgan" (p. 69), "Tyler" (for Tylor, on p. 427), "*Schien* or illusion" (p. 381), "post-Schenpenhaurian philosophy" (p. 227). In "the relative and infinite world" (p. 413), "finite" is probably the correct reading. There are many strange, and one might think unnecessary, innovations in language, e.g., "posit" (as a noun), "devoidance," "mergence," "finitation," "judgmental," "medialional," "unmediable," "freedomist," "volistic" (a word which seems to suggest a philosophy among the field-mice). Some novelities are introduced with an apology, e.g., "related," "pulsion". Others are indeed sanctioned by the liberal canons of the *Century Dictionary*, e.g., "trialism," "outer" (as a verb), "revelatory". On page 105 we find: "The child brings the spoils of its excursus back to the home treasury," which is at least an odd expression. "The knowing subject begins to have an awning (*query* = *Ahnung*?) that," etc. (p. 116). "The perception of time is more erudite than that of space" (p. 129). "The element of each is some *minimum visible* or appreciable" (it is printed thus, on p. 136; one is uncertain whether it is meant for English or Latin). "This would not only defecate mathematics, but would also leave

physics in a bad way" (p. 321). This would seem to suggest that "defecation" does harm.

The punctuation is of a kind that does not always help the reader. Single commas are interpolated between nouns and their verbs, between prepositions and the nouns they govern. Thus on page 466: "Now, mechanism as thus far conceived, is a relative conception". This method of punctuation seems to be applied on system. In the footnote to page 521 there is a reference given as follows: "Chap. viii., Grounding of Relative Conceptions—Theme, Mechanism, and Teleology". Ambiguity is also caused by carelessness in style. Thus on page 490 we have "direct stimulation of the transcendent other," there the "of" must apparently be taken in the sense of "by". "It" and "its" are several times used in a way that gives trouble to the interpreter. Thus: "We have seen that at various points in experience the transcendent is involved, and we have pointed out in certain connections how the transcendent leads to the formation of intra-experiential concepts and principles which are necessary for its reduction to unity and stability" (p. 356). "Its" here must be referred to "experience".

Metaphors abound and are not always kept from mixing. "Through the interpretation of Sterling (*sic*) the pulsating heart of the Hegelian dialectic was projected into the field of English thinking" (p. 11). "The concept of time as the incessant flow of discrete pulses" (p. 142). The "bull" here seems intended to lift us over a difficulty). "The vitals of Kant's doctrine are to be found at the point of Hume's greatest blindness" (p. 184). "The notion that changes are not without anchorage, but that somewhere in our world there is something that will shed light on their origin, and thus clothe them with a degree of rationality" (p. 209). But more startling than such kaleidoscopic imagery, is the etymology suggested on page 480. "The seeing eye [of feeling] is more or less suffused with a mist of emotion which impairs its power of clear conceptual definition. The apprehension that is effected in such an organ may well be called mystical, and we find here perhaps an important linguistic motive for the selection of the term by which this type of experience is designated." It is a pity that some would-be "mystics" do not know, and learn from, the true etymology of the name.

The words "will" and "would" are constantly used, instead of "shall" and "should," in a way that makes even a Scotsman shudder: and yet it cannot be said, in excuse, that the word "shall" is simply boycotted, for it is used some six times correctly in 500 pages, it is once used incorrectly instead of "will," and twice where either word might have been employed. However important the message a philosopher has to deliver, he might take some thought for the convenience of his readers and show some respect for the language in which he professes to write.

To pass from the form to the substance of the work—Prof. Ormond's aim, as stated by himself (p. 518), is to prove (1) "that

the world is through and through, experience" [the punctuation is his own], and (2) "that the world is through and through, rational"—a conclusion which looks very like what Prof. Ormond would call "Hegelism," but which is reached by a method which he clearly considers to have more affinity with what he calls "Kantism" and which is made to fit in with what on the same principle should be called "McCoshism". A passage from the "Preface" may be quoted as indicating the writer's method of treatment: "While the work aims to be broadly experiential in the sense that the notion of experience is to be regarded as all-comprehensive, yet the application to it of the term empirical in any narrow or partisan sense may fairly be resented. For as regards the ordinary issues between empiricism and rationalism or intuitionism, they are simply transcended by the inclusion of reason and intuition among the functions of experience; for it is clear that experience cannot dispense with intuition, and it is no less obvious that the supreme intra-experiential test is that of rationality." Prof. Ormond's attitude to Hegel is expressed in a somewhat oracular passage: "What we have maintained is that no concept of the absolute is adequate to a first-hand deduction of the nature and content of the finite. In this we split with the thought of Hegel, but we are perhaps anticipating the truer Hegel in our contention here that though the organ of finite experience must be our guide in the first stages in the discovery of content, yet in order to reach a final construction, Virgilius must give way to Beatrice" (p. 470). [The word "anticipating" is puzzling, unless there is a Hegel yet to come: and why *Lat.* "Virgilius" (and if Latin, why not "Vergilius") along with *Engl.* or *Ital.* "Beatrice"?] Towards Kant Prof. Ormond adopts a patronising tone. "In the transcendental notion of unity," we are told, "Kant has in fact stumbled upon our category of unity as developed in the æsthetic consciousness. . . . We are in a position to reach a more satisfactory result" (pp. 245, 246). Yet on page 125 we find the statement "that everything arises in experience" made as if it was something that Kant had not held. It seems doubtful whether Prof. Ormond has ever realised what Kant's problem really was. He complains that "Kant rarely, if ever, takes psychological ground" (p. 125); but though (on p. 19) he speaks of epistemology as distinct from "psychology or any directly historical science," he seems to regard a genetic account of how experience grows as supplying a sufficient epistemology. After a short discussion in "part i." of "the ground concepts of knowledge," he proceeds in "part ii." to treat of "the *Evolution of the Categories of Knowledge*"; and it is there that he criticises Kant's Transcendental Æsthetic and Analytic. Now it is of course a tenable position—at least it is a position that has been held—that we can have no epistemology over and above what genetic psychology can furnish; but, if Kant's distinction between a criticism of experience and a psychological description of it is to

be put aside, some explicit justification for such procedure should be given. Kant should certainly not be criticised as if he had made no such distinction. Prof. Ormond makes, indeed, a valid criticism on Kant in saying that he failed to distinguish with sufficient clearness between presentative and conceptual space (and time). But he goes on to treat the fact that the mathematician is dealing with conceptual space, as if that fact of itself solved the problem with which Kant was concerned. Now (1) if we are giving a genetic account of the evolution of mathematical conceptions, it will not do to *begin* with the conceptual points, lines, etc., of Euclid. A psychological account of our way of thinking of space should surely take note of the fact that, before Euclid, the Pythagoreans (like children of to-day and empiricist philosophers) believed that geometry dealt with points which had magnitude (*minima visibilia*), etc. It was only the criticisms of Zeno of the Eleatic and the philosophy of Plato which led later mathematicians to the purely abstract and conceptual view. (2) Prof. Ormond says "it is found that the space yielded by mathematical conception is a space capable of empirical determination" (p. 141). But this is just where Kant's problem *begins*. Kant sees a difficulty where Prof. Ormond is content to say "it is found". What entitles us to determine experience *a priori* (i.e., independently of experience) in the mathematical sciences? Prof. Ormond says: "The mathematical point has nothing in common with the unit of presentation, nor have the lines and surfaces of mathematics anything in common with the presentative lines and surfaces except what they acquire through motion. It is through motion that the mathematical intuition gradually achieves an empirical result." How the motion of a purely conceptual point, which must be a conceptual motion, can make the transition to a perceptible point or line, Prof. Ormond nowhere explains: and if this miracle were explicable, the necessity of mathematical judgments as applied to perceptual experience would still not be accounted for. The conception of the line as a point in motion, of a surface as a line in motion, etc., is a purely modern way, and a highly instructive way, of conceiving abstract spatial relations; but long before any one had thought of it, the Greek geometers were able to determine experience *a priori*. Kant's problem arises on any theory which allows the necessity of mathematical judgments. What gives *objectivity* (i.e., validity for all minds like ours) to the results of our mathematical thinking? Throughout the whole of Prof. Ormond's volume there is no analysis of the conception of objectivity. The term "objective" is constantly used as if it were sufficiently explained by the most elementary distinction between subject and object in any cognitive act.

Just as our knowledge of space and time is treated in a purely psychological manner, and with a rather inadequate psychology, so are the categories of substance and cause treated as if the "animism" of primitive and unphilosophical thinking explained

everything that had to be explained in a theory of knowledge. Cause is called a "volitional category." Substance is traced back to the notion of self: and Kant is again criticised from this inadequate psychological point of view. "What Kant was really defining to our later vision was the close analogy of the notion of substance with that of self. Kant did not see this, at least with any clearness, but in his hands substance begins to assume the lineaments of a subject-activity" (p. 185). What a strange inversion of history! Berkeley had already seen and used the analogy; and Kant expressly argued against the applicability of the conception of substance to the self. So again we are told, as if Kant's arguments did not at least deserve refutation, that "Soul is a perfectly concrete and intro-experiential term" (p. 266). "Experience," it should be noted, is taken by Prof. Ormond to include not merely actual but *possible* experience: yet there is no analysis anywhere of the term "possibility". Some terms are defined; but the definitions are not always helpful. Thus on page 67 we read: "Knowledge is, of course, a conscious function. Taking it objectively it is a product of what we call the cognitive consciousness." On page 92 "the real is to be regarded as the realised content of experience". Either there is a *circulus in definiendo* or there is an awkward ambiguity in the use of the word "realised".

A great deal is made of personality, but the analysis of the conception is very inadequate. After referring to the use of the term λόγος for "the self-manifesting reason of the world," Prof. Ormond proceeds: "When the Latin tongue succeeded the Greek in our western life as the language of religious thought, the term *persona* and its derivatives became the vehicles of this profounder significance which still constitutes the inner sense of our modern notions of person and personality" (p. 260). Now it is not true in any historical sense that the term *persona* took the place of the term λόγος. In its theological sense *persona* was used for ὑπόστασις: in its legal sense *persona* has helped to give us the modern ethical concept of personality. Some attention to the legal source of the modern term might have suggested the consideration that "individual" and "person" have not always been regarded as co-extensive terms as applied to human beings. Prof. Ormond would have followed the guidance of history better, if he had treated personality among the categories which are influenced by the consciousness of community. But he assumes the conception of personality before he touches on the social factor in knowledge. "Personality," he says, influenced by the original meaning of *persona*, "will be the expression of the self as a whole, not of any part or aspect abstracted from the whole, and it will be a fundamental expression of nature, not a mere flash in the pan which signifies nothing" (p. 262).

In spite of the unfavourable impression produced by the manner of the book and especially by the criticisms of Kant, we must

recognise several features of real interest in the psychological account of cognition which is put forward as an epistemology; especially (1) the stress laid, with perhaps some exaggeration, on the *aesthetic* element in the demand for unity that influences all our cognitive processes (part ii., ch. ix.); (2) the recognition, though rather inadequate, of the social factor in mind and the tracing back of both egoism and altruism to their social basis (part ii., ch. xiii.). There are also some suggestive things in the chapter on "Knowledge and Belief" (part iii., ch. i.). The third part is in many ways the most important: and it would be a pity, if the unfortunate style of the writer deterred any one from reaching this more interesting portion. It is entitled "The Transcendent Factor in Knowledge," and deals with the subjects treated in Kant's "Dialectic". Chapter vi. on "The Transcendent Subject" has a subtitle "Psycho-Theology," which seems to mean "The Psychology of the Divine Mind". Prof. Ormond insists on the recognition of the element of Feeling, as well of Thought and Will, in the Absolute Consciousness (p. 441). The treatment of mysticism, is on the whole, philosophical. The philosophy is, indeed, more after the manner of Plotinus or Augustine than after that of Kant or of Plato, who was always more careful than his professed followers to separate myths and symbols from strict philosophical thinking. On page 417 pluralism is implicitly criticised in the warning against "the mistake of supposing that individuality, in order to be real, must be absolute". Yet this leaves us more astonished that the author should make such an unphilosophical appeal to prejudice as this, on page 479: "The soul's shrinking from the thought of its own annihilation is not wholly the re-action of the instinct of self-preservation; there is in it also the recoil from a kind of blasphemy". Now—apart from any legal definition—blasphemy is a matter of sentiment: and there are some who might think there was more blasphemy in speaking as if the endless perdurability of every individual human being, as an individual and a self-identical person, were an inalienable right to be demanded of the Absolute. There is surely no blasphemy, but a truer reverence, in the caution of Lotze, who is content to say: "That will last for ever which on account of its excellence and its spirit must be an abiding part of the order of the universe; what lacks that preserving worth will perish" (*Microcosmus*, Eng. tr., i., p. 389). Towards the very end of Prof. Ormond's book there is an excellent passage, in the spirit of Leibnitz, which marks a very great philosophical advance in "Intuitionism," if the McCosh Professor may be taken as the exponent of the doctrine of his school. "The mechanical aspect of the world is absolutely universal and co-extensive with reality, and we may look in vain for gaps in its armour. If the spiritual must depend for its right to be, on the existence of crevices and gaps in mechanism then the spiritual is doomed, for it can safely be predicted that no such gaps will be found. The spiritual

mode of conceiving the real asserts itself in its own right, and is as universal an aspect of the world as mechanism itself" (p. 521).

D. G. RITCHIE.

Untersuchungen über Hauptpunkte der Philosophie. Von JUL. BERGMANN. Marburg: N. G. Elwert'sche Verlagsbuchhandlung, 1900. Pp. viii., 483.

PROF. BERGMANN'S volume is in form a collection of essays of which only one is wholly new, only one wholly rewritten. Widely scattered in their first publication and under titles which give but partial promise of inner connexion, they cover topics so far apart to all appearance as the criterion of truth and the psychology of desire, or as Wolff's doctrine of the *complementum possibilitatis* and the determination how far, given the self-subsistent reality of the material world, a soul-inhabited body can be made intelligible. Actually, however, the several studies now reprinted do exhibit an inward unity, do subserve a single metaphysical construction, which, despite of a certain element of bookishness in its inception, has some claims to originality.

The metaphysic which the Marburg professor has to expound is frankly Cartesian in its inspiration. If the conclusions are not those of Descartes, Spinoza, or even Leibniz, the shaping of the problems, the lines of solution, the conception of method, bear the hall-mark of the school. On the other hand, if the ultimate issue is an objective idealism according to which an all-inclusive spirit, of which the individual consciousness is a limitation, has for its everlasting phenomenon the spatio-material world, it is not in the following of the post-Kantian development that this result is achieved. In Prof. Bergmann's view Kant leads to an agnostic *cul de sac*, from which we must retrace our steps, if we would reach the goal which the Cartesians divined but did not attain to. It is as critics of Kant, or as throwing light upon the fundamental positions of Cartesianism, that appeal is made to Schopenhauer and to Fichte, to Herbart and to Lotze. The keynote of Dr. Bergmann's teaching is a Neocartesianism.

It is in the essays on "Existence and the I-consciousness," on "The Objects of Perception and Things in Themselves," and on "Soul and Body," and in a less degree in that devoted to "The Law of Sufficient Reason" that the collective title is seen fully to justify itself. The rest, though of solid structure and not devoid of interest both in themselves and for Prof. Bergmann's system, may be briefly dismissed. The first, on "Belief and Certainty," chops some doubtful logic contrasting the *icht* (as opposed to *nicht*) predication of *glauben* with the bare predication of *meinen*, defines belief as the holding for true, and discusses some rather academic difficulties as to negative and problematic judgments. It then characterises certainty as belief with the added recognition of its warranty. The sceptical objection that for the certainty of your

mark of certainty you require a fresh mark, and so without end, is met by the distinction of recognition and full comprehension. Like the hero of the fairy story, we know when we are in the last room, and seek to penetrate no farther; nor does subsequent reflexion add anything to conviction. In the case of non-derivative certainties we recognise either analytical correspondence of predicate with subject under a law of identity or else accord with experience, whatever that may mean. The second essay seeks simply to set the required law of identity side by side with the law of contradiction as formulated by Kant, to expound them and to determine their limits. The chief interest so far is the polemic against the certainty of synthetic judgments *a priori* and the non-logical certainty which Kant maintains in the moral sphere. There are 'anticipations of knowledge,' and analytical but 'heterological' (not tautologous) judgments are possible—*analytische Erweiterunsurtheile*. The unconditionality of moral obligation is in one sense not certain, in any other if certain it is so according to the laws of logical certainty.

The fifth essay is devoted to a criticism of Wolff's teaching as to the relation of possibility and actuality, with special reference to Baumgarten and Kant's treatment of the same subject. Prof. Bergmann must clear his argument of any suspicion of complicity with 'the ontological proof' of rational theology, whilst yet, as we shall see, his own metaphysic cannot avail itself of Kant's formula of disproof. Hence an acute discussion of the *ens realissimum*. The eighth and last essay, which now appears for the first time, takes up the criticism of Kant's ethics adumbrated in the first, and out of this constructs a theory of morals of a high degree of suggestiveness. Can a practical reason or will be independent of the content of desire? What is the content of desire in general? Can the results of a treatment of volition as directed upon an end ostensibly external to it be reconciled with those of its treatment from the standpoint of its intrinsic character? What would intrinsic character mean? Is there and must there be something corresponding to what the Moral Sense School put in the forefront of their ethics? What formal criterion is there of higher and lower with reference to ends? and the like. The essay is instructive, but it has little bearing upon Prof. Bergmann's neo-cartesian theory of appearance and reality, by which the permanent value of his book must stand or fall. Indeed it is not brought into definite relation with it. There is nothing of the relation of will to self-consciousness, and the Kantian position most conspicuous by its absence from the ethical discussion is the antithesis of the intelligible and empirical character. Further, it is held to be a *reductio ad absurdum* of one-sided rigorism that a *tugendhaftes Wollen* would need to have itself for its end and aim *ad infinitum*. This would need careful shaping to be compatible with Prof. Bergmann's metaphysic.

To this we gain our definite introduction in the third essay, that

on the Law of Sufficient Reason. Primarily exegetical, this study aims at bringing the principle of the ground into the closest of relations to the well-known text: *predicatum inest subjecto*. For a perfect intelligence all matters of fact must be capable of being contents of analytical judgments. This pronouncement, however, needs the establishment of non-tautologous analytical judgments, and requires further to be harmonised with the possibility of change, whether of things or, on an idealist hypothesis, of psychical contents or conscious subjects. As to the first point: that may be objectively *der Sache nach* identical, which subjectively *der Auffassung nach* exhibits diversity, e.g., judgments about triangular figures are identical and yet not identical with corresponding judgments concerning triangles. This carried a little farther leads us to the reality of time. As does the discussion of the second point: if for a perfect intelligence all the determinations of a subject can be expressed analytically, any subject A remains one under all its changes. But this can only be so if A as it was, A as it is, A as it will be, not in points of time but in minimal tracts of time, are the same *in re*, different *conceptu*. Identity in difference is operated by time, which is therefore no mere phenomenon. It is, on the other hand, true that the time-determinations of a 'thing' would follow from its *individuelle Wesenheit*, and not conversely. We conclude apparently to the everlastingness of the world in time, and in a sense to that of the things in it, though there is of course a sense in which they are generated and destroyed. As it was without beginning is now and ever shall be without end.

So far we have reached a conclusion upon the Leibnizian hypothesis. The next essay in part modifies, in part develops the conclusion reached. It deals with the fundamental problem of Cartesianism, existence in its relation to consciousness. "The Concept of Existence and the I-consciousness" embodies Dr. Bergmann's central thought, or it may be said to 'key' his system. By the existence (*Dasein*) of any subject we mean its independence of the need to be an object of perception or thought to some subject beyond itself. Whilst agreeing with Kant that existence or reality cannot serve as a predicate to a subject, he maintains against him (a) that every judgment posits the existence of its subject; (b) that existence is a determination belonging to a subject; (c) related to all other determinations as general to particular. In view of the fact that many propositions fail to affirm the existence of their grammatical subjects and since we reject 'the ontological proof' of the existence of God, we need obviously to determine what the subject of the judgment really is in various types of judgment. Its existence is posited, but what is it? In the case of separate things, if such there be, other than conscious selves, their existence would be co-existence with all similarly existing things in an existent world. This world is the subject. The fact that it involves the thing in question is the predicate. But what again is it that we mean by the reality or existence of

the all-inclusive whole or world? Not self-inclusion or correspondence with itself. That were a tautology or would mean everlastingness in a real time without beginning and without end. The latter cannot be a factual datum for consciousness since futurity is involved. If we are to get forward then, we must be sure of the reality of some one being, without the assumption of that of something beyond it without end. Existence as applied to 'things' is only intelligible as implicated in that of a world. This again, to be realised, must have the reality of somewhat established to which it is related. We can establish *Dasein* for individual consciousness. *Cogito, ergo sum*. Consciousness to appear to itself, or to envisage itself as appearing to itself, must be real. Thought if not independent of thought is independent of the need to be thought by aught beyond itself. That I am is a primitive analytical *a priori* judgment, but withal it is not tautologous but ampliative, and it is an experience or there is no experience. The reality of the world is posited in relation to this real I-consciousness, as including it and all else that is real. The world in question is still hypothetical, and we must be on our guard against identifying it overhastily with the spatial world, and there is trouble yet before us as the nature of the individual self-consciousness, but we have established our Cartesian *sum* and the hypothetical *est* as they come under the notice of Kant in his 'refutation of idealism'.

The I of self-consciousness is both subject and object. As subject it is again object in relation to a subject, and so on without end. As object it is again subject in relation to an object, and so without end. Prof. Bergmann's fundamental paradox is the acceptance of this twofold infinite process. If time be real it is possible to have an infinite series of 'self-positions'. What we find in memory, the present of self in a minimal but finite stretch of time, conscious of its unity with the past of self, and passing over to a future of self similarly conscious of unity with its past, is the fact. We have something like Prof. William James's doctrine of Self operated through a doctrine of Time suggestive of Dr. Shadworth Hodgson's, in either case less psychologically and more metaphysically conceived.

The sixth essay on the objects of perception and their relation to things in themselves is intended to orientate Prof. Bergmann's ontology more exactly with regard to Kant's main positions. The pure philosophical construction is avowedly Prof. Bergmann's chief interest, but incidentally it is possible to serve, and receive service from, history of philosophy, and Kant's *Critique*, as it shows to a thorough-going criticism of Kant, is a focus, so to speak, for the calculation of Prof. Bergmann's positions. What are to be our views of space, time, matter, the thing in itself as unknown residuum defying analysis when we consider our perceptions, and the equally unknown and residual thinker in itself?

It is here, if at all, that Prof. Bergmann is to escape from the

suspicion of subjective idealism with which we were left in respect of a world whose reality was possibly only hypothetical or problematic, only ostensible or imputed in the relation of container to the real consciousness for which it was. If it is independent, how are we to construe and how prove its independence? We are certain of the distinction between objects of outer perception and objects of imagination, but none of the things of outer perception are given as real and not phenomenal. Certain of the *Dasein* of our consciousness and of the attribution to this existent of the possession of external perceptions, yes. Of the *Dasein* of the contents of such external perceptions, no. Even the primary qualities of matter are dependent on their *percipi* in the sense that we could not say that they would not be obliterated with the envisaging consciousness. The thing-in-itself on the side removed from the thinker is meaningless. Kant is in the right in affirming the phenomenal character of space, and therewith clearly of all spatio-material content, but this involves the abdication of the unknown unconscious assumed to underlie it. There is no Mrs. Harris. On the other hand there is a way of getting forward on the side of consciousness. In the first place, from the disparateness of the way in which we actually perceive space and the way in which it seems that we have to think it, i.e., as infinite and infinitely divisible, the suggestion emerges that mathematicians' space, if not a mere fiction, is phenomenon to an all-inclusive consciousness, while physical space is what space is as phenomenon to the individual's limited perception. So, too, for the primary qualities of matter and all the *præmissa* of scientific physics. They are phenomena for the infinite consciousness, and in construing them the individual is under the necessity to employ sensuous experience, because they are not merely his phenomena, but those of the unbounded and all-inclusive spirit. If science really achieves anything, then we cannot rest in subjective idealism. If we pass beyond subjective idealism the monadology does not help us. If we take the step to objective idealism, inorganic 'things,' our bodies, other selves present no real difficulties. This is the train of argument by which the problematic or assumptive nature of Dr. Bergmann's idealism is *aufgehoben*. In the second place, if the 'I think,' that for Kant accompanies all my perceptions, is a fact for consciousness, it takes place in time. A consciousness of the persistence of anything in time itself persists through that time, but grant this, and the distinction of the timeless I from the empirical I of inner sense is destroyed. The former is not, for there is no timeless consciousness. The latter is not, for there is no I-phenomenon. Instead is the everlasting self-position, not only as to existence, but as to nature, of a real self in real time, and so of its world, of the infinite self-consciousness and of its phenomenal 'other,' the everlasting spatio-temporal world.

Throughout this 'rectification' of Kant, and especially with regard to certain phenomena implicating both sensation and feeling,

e.g., toothache, we have constantly been confronted with bodily—our-bodily—facts. Our bodies too are objective phenomena, for the infinite consciousness and so for the finite. Nevertheless in the essay on "Soul and Body" a brave attempt is made to vindicate once more the plain man's conception of bodily organisms, *i.e.*, bodies where the conditions of a true unity are present, endowed with soul or consciousness. It is, of course, intended that this should fail, but it is intended also to show it so nearly successful as to reduce the artificially widened gap between empirical and metaphysical world-formulas. This essay is in its detail the cleverest in the book, though in these days of electro-magnetic and ether theories some of its mechanics may be thought belated. Dr. Bergmann has cognisance of multi-dimensional space-theories, but Euclidean space is involved for him in a heterological analytical judgment *a priori*. The 'adverse occupancy' of space by matter rests for him on a to us unknown, because not extensional, character of matter. The conditions of a real, *i.e.*, self-subsistent organic unity might be fulfilled if we have other similarly imputed unknown characters, but still the fusion with consciousness, or the co-ordination of organised extension and consciousness as not self-subsistent attributes of an unknown third, contradict our doctrine of consciousness, just as the presumed independence of the spatial world contravenes our doctrine of perception. So we conclude in terms of our metaphysic as developed.

The renewal of interest in Leibniz and the growing tendency of certain schools to couple their logic and dynamics in the manner of that master, might perhaps act somewhat unexpectedly in favour of a writer who has kicked against modes in philosophy and followed his own train of thinking despite of the dominant subjective interests of his day. But even if no disciples accept Prof. Bergmann's construction as the truth, at any rate any student who will work through Dr. Bergmann's wealth of detail must learn what is new to him, true to him, of value to him. Prof. Bergmann has studied philosophy in a great school,—namely, in the history of philosophy itself, notably that of the eighteenth century. He has felt the fascinations specially of two great masters, Leibniz and Berkeley. And he is

Nullius addictus jurare in verba magistri.

HERBERT W. BLUNT.

Die Philosophie des Geldes. Von GEORG SIMMEL. Leipzig : Verlag von Duncker & Humblot, 1900. Pp. 554.

MONEY is at once symbolical of and instrumental to that connexion which subsists between the most external phenomena of existence and its most ideal potencies. A Philosophy of money should deal therefore on the one hand with those preconditions in the constitution of the soul, in the relations of society, etc., from which money

derives its significance; whilst on the other hand it should follow out the part played by money in the development of the inner life of the individual and of society. "Keine Zeile," says the preface, "dieser Untersuchungen ist nationalökonomisch gemeint." Yet the facts of economic science and of economic history necessarily play a large part in the discussion, as also do the facts of anthropology. There are many interesting contributions to descriptive ethics; the main points of ethical theory are brought under consideration and there is a digression on the theory of knowledge. But the central theme lies in an amplification of the ideas expressed in Prof. Simmel's essay, *Über Sociale Differenzierung*, which was published in 1890. The two aspects of the subject above referred to are dealt with in the *Analytischer Teil* and the *Synthetischer Teil* respectively, each being divided into three chapters.

The first chapter discusses value in general and the distinction between its subjective and its objective forms. Over against the world of mere conceptions (*Begriffe*) stand the two independent all-embracing categories of Being and of Value. Each rests on fundamental feeling and neither is reducible to the other. In the same way the distinction between subjective and objective values appears to be taken for granted. Objective values need not refer to the object; 'there may subsist relations between subject and object by virtue of which certain feelings present themselves to the former as equally obligatory and inevitable as sense impressions. In realising their living force we appear only to acknowledge a claim of the conceptual order of things, religious, æsthetic and moral.' The conception of objective value is in fact metaphysical, and is referred 'to the fundamental disposition of the human spirit, so to experience a content as if it were not itself the subject of the experience, but the medium (*Vermittler*) through which an impersonal Power realised its existence'. To this explanation which seems to smack a little of the '*vis dormitiva*,' it is but a corollary to say that the practical significance of objective value lies in providing norms for subjective value. This starting-point, however, being granted there is little to object to in the account given of the gradual determination of values through the conflict of desires among themselves and the opposition they encounter in the nature of things; though now and then the author seems to confuse, perhaps inevitably, the historical with the logical order. In the last section of this chapter Prof. Simmel seeks to fit his conception of economic value into "*ein prinzipiell bestimmtes Weltbild*". Our ideas are dominated, he tells us, by the physiological necessity we are under of alternating between rest and movement. Hence arises the antithesis between substance and attribute and in course of time that between absolute and relative. With the growing sense of the relativity of knowledge, the absolute has lost its content and seems about to disappear. Yet the mere relations imply criteria, and these again an ultimate criterion. In our search for such criteria we may never attain

finality, but we must continually approximate to it; and persistence in this distinguishes the relativist from the sceptic. These criteria however are not superimposed but immanent, not constitutive but regulative. Truth is in fact relative to practice; it emerges in a mutual self-adjustment of ideas, it is a '*functionelles Zusammengehören*'. The truth in the sense of sight of a man, an eagle or a fly, lies in its adaptation to its respective environments. The origin and nature of value are closely analogous to the origin and nature of truth. 'Relativity is not a weakening, a qualification of an otherwise independent idea of truth—it is the essence of truth itself—it is the mode in which ideas (*Vorstellungen*) become truths just as it is the mode in which objects of desire become values.'

The philosophical background thus sketched in shows a bewildering transition of standpoint between physics and psychology, the theory of knowledge and metaphysics, which reminds one of a Platonic dialogue. Indeed it is in a short digression on the Platonic ideas at a later stage in the book (pp. 479-481) that the reader will find what is perhaps the author's most successful attempt to state his own philosophical position. It may be added that the value of Prof. Simmel's speculations is largely independent of this metaphysical basis; or rather that the implicit metaphysic which is essential to his psychological investigations has an adequacy which seems to fail it when drawn out into abstraction.

The second chapter treats of the distinctions between the substantial character of money and its functional character; and describes the historical evolution by which the former character tends to lose itself in the latter, a process, however, which can never be perfectly completed. To most English readers there will probably appear to be an excess of subtlety in the treatment of this part of the subject. The functional character of money as a pure means being considered as approximately realised, the third chapter on '*Das Geld in den Zweckrechen*' follows out the psychological and economic consequences involved in the possibility of separating means from ends. In this connexion will be found a discussion of most of the conceptions introduced of late by economists in expounding the theory of value, marginal utility, consumer's rent, future values, etc., and a specially careful analysis is given of that cumulative power of capital by virtue of which quantity passes over in quality. On the psychological side there is an interesting analytical study of the various abnormal phases of character to which a money economy naturally gives birth, *i.e.*, the passion for money making, avarice, extravagance, voluntary poverty, modern cynicism and the *blasé* character. In such psychological characterisation lies one of Prof. Simmel's strongest points, but to summarise the result is impossible.

The second or 'Synthetic' half of Prof. Simmel's book will probably be of greater interest to most readers, and it is perhaps on the whole the more successful half. Its three chapters are entitled 'Individual Freedom,' 'The Money Equivalent of Personal

Values,' and the 'Style of Life'. Though they cover a great deal of ground and are marked by the author's usual wealth of illustration and tendency to digression, the main theme is throughout the development of the ideas expressed in the essay on Social Differentiation. The progress of civilisation is to be measured by the constant widening of the circle of persons with whom a given individual is brought into relations of interdependence, and at the same time by a decrease in the degree of dependence of the individual on any particular person or group of persons. The psychological differentiation of function of which this development is the outward expression finds its main instrument in the money economy. From a tribal status under which the whole concrete personality is bound by a single indiscriminating obligation at once religious, political, social and economic, man passes by degrees to a condition in which he is bound by separate ties to his country, his church, his family, his trade, his party, his social circle, etc., and for the most bound only in a form of limited liability which lends itself increasingly to experiment and variation and therefore to positive freedom. Along side this development there proceeds an auxiliary and complementary evolution of property from its most immobile forms to the perfect fluidity of an all-pervading currency, a process which renders possible the formation of those professional classes which are perhaps the most characteristic feature of a high civilisation. In the earlier stages what a man has and inherits largely determines what he is; whilst in the later his personality acquires an increasing power to imprint its character on his possessions. We cannot cease to be the heirs of the past but it makes all the difference to our liberty whether the inheritance is one that claims *us*, or one that we ourselves choose. The money economy thus opens the way to a progressive individualisation of the individual; whilst at the same time by an ever subtler and more complex interweaving of the separated fibres of impersonal relationship it promotes the socialisation of society.

The fifth chapter begins with a discussion of 'blood money' and of marriage by purchase. It seems at first a curious paradox that the period most remote from the money economy should have been the one in which the value of a person was most readily balanced by a money equivalent. Apart from much ingenious interpretation of anthropological details which are themselves perhaps still somewhat involved in a speculative atmosphere, Prof. Simmel would account for this class of social phenomena generally by the fact that neither the intrinsic value of man nor the extrinsic value of money had yet emerged into clear consciousness. Now that the antithesis between humanity as an end and money as a means has been realised, the moral degradation involved in bartering the former for the latter is typified in the word prostitution. Prof. Simmel subjects to a careful analysis these perversions of freedom and also those cases of negative

freedom in which the transition to a money economy has lowered instead of heightening the personal status; and he devotes the final section of this chapter to the discussion of labour values. His treatment of the Marxian theory shows a great advance in sympathetic appreciation on the usual academic criticism, which, starting from a purely economic standpoint, have no difficulty in proving *Das Kapital* to be a mass of absurdities. This is as if one were to subject "*Le Contrat Social*" to the severest tests of anthropology and comparative jurisprudence. What demand serious philosophic attention are the passionate idealistic beliefs that appealed through these books to the multitude, not the devious and illogical form of the speculations through which they found expression. Prof. Simmel at any rate carries us to a higher standpoint from which the essential features of this phase of idealism begin to emerge upon our view. He holds the labour theory to be philosophically the most interesting of all theories of value. The attempt to reduce all labour to physical labour is not due to ignorant contempt for mental work, but points rather to the fact that a considerable portion of the mental factor in production is actually gratis. What determines the form of the theory is, however, an ideal of social equality which is only conceivable on an economic basis. It is, moreover, as an ideal and not as a statement of fact that the constant correspondence of the use-value of a commodity with the labour-time spent upon it, can alone be fruitfully criticised.

The sixth chapter on the 'Style of Life' is apparently intended to balance the third. The psychological predispositions attendant upon a money economy which were there traced in the formation of individual character are here shown to give a colour and a tone to the life of civilised society as a whole. Foremost of these characteristics is the increasing predominance of the intellectual element over the element of feeling in social psychology. The analogy between the parts played by intellect and by money is once more insisted upon. The intellectual development of human society and the rise of the money economy each assist at the formation of a certain impersonal almost communistic atmosphere. The interests of life are objectified so that we view them coolly and disinterestedly, and a spirit of toleration is fostered which was impossible amid the conflict of immediate unreflecting impulses. But, in course of this same process, as desire loses its directness, as means multiply and ends are obscured, as the rationalistic temper prevails over sentiment, a new sphere of activity is created apt for the aggrandisement of the individual and for the exploitation of the many. Moreover, in the culture of the spirit our subjectivity is overborne by the ever-growing predominance of the 'Objective Mind' of humanity. "Things are in the saddle;" 'The individual withers and the world is more and more'. The last section of this concluding chapter gives a series of ingenious illustrations of the effects of the money economy

on the formal aspects of life expressed in terms of perspective, rhythm, measure and symmetry, all of which serve to accentuate the function of money as symbolising the relativity of existence.

The saying of Joubert about himself, 'Je suis propre à semer mais non pas à bâtir et à fonder,' might be applied without injustice to Prof. Simmel. His book is a storehouse full to overflowing of fine psychological observation, of valuable philosophical suggestion, and its weakest points are where it makes the nearest approach to systematic treatment. It must be added that it is probably more useful and stimulating than a more systematic attempt would have been, since the time is scarcely ripe for successful construction. In this connexion it is most significant that the author should have chosen to formulate his views as a philosophy of money rather than as a philosophy of value. It is quite consistent with this that the *Weltbild* into which he would fit his speculations, is a theory not of reality but of knowledge, a theory, moreover, which, however it may seek to outgrow its origin, has its roots in scepticism. If the combination of subtle psychology with naïve metaphysics seems to carry us back to the pre-critical epoch this is because philosophy having widened its orbit must repeat its phases. Philosophy, however, cannot unlearn its past, and from time to time it is borne in upon the reader of this book that if the hands are the hands of Hume the voice is the voice of Hegel.

In shifting its centre, as it is tending to do, to the notion of value, philosophy is following by a true instinct the direction of the concrete human spirit. The social idealists have already sought the Absolute in work and in wages. The labouring man has vaguely felt that each pay-day should have the finality of the Last Judgment. To whatever abode the human ideal shifts its quarters, philosophy must follow with its transcendental dialectic. In this migration Prof. Simmel is a brilliant pioneer. He has cleared the ground and shown how the land lies. The imperfect juncture of the two parts of his book reveals the nature of the problem, which is to bring into vital connexion the phenomena of value and the phenomena of social differentiation. Of the reality of such a connexion, the money economy is the outward and visible sign. On those deeper aspects of the subject to which any philosophy of money must be inadequate Prof. Simmel has not failed to touch. He is never so happy, for example, as when he is drawing illustrations and analogies from the world of art; and this is the region where all the higher elements of the problem of value converge.

GEORGE UNWIN.

L'Imagination et les mathématiques selon Descartes. Par P. BOUTROUX, licencié ès lettres. Bibliothèque de la Faculté des Lettres de l'Université de Paris, No. x. Paris: Alcan, 1900. Pp. 45.

THIS volume contains a careful exposition of Descartes' doctrine

on the subject dealt with, but abstains from all criticisms; the many objections to the doctrine are not mentioned, and some, at least, seem not to be perceived. The difficult questions as to the Cartesian meaning of imagination are left untouched. The work has as motto a quotation from the *Regule* to the effect that the intellect alone can perceive truth, but that it is well to assist it by means of imagination, senses and memory. This thesis is amplified in the text. Descartes aimed at restricting the use of imagination in mathematics, but regarded, it, nevertheless, as in some degree an indispensable auxiliary. M. Boutroux divides his discussion into two parts, the first on the principles of mathematical knowledge, the second on mathematical demonstration. In the first part, it is pointed out that, though knowledge requires ideas, not images, yet imagination is useful, not only in Geometry but also in Algebra, from which Descartes excluded every notion not capable of representation by an image. In the second part, it is pointed out, to begin with, that Descartes asserts not only that the triangle can be conceived, but also that its properties can be proved, without the help of imagination or the senses (p. 13). But demonstration, being regarded as a practical method of arriving at new truths, may be pursued by whatever method is most convenient, and practically it is easier to employ the imagination to some extent. M. Boutroux proceeds to remark (p. 15) that imagination always intervenes in deduction, since this operation takes time. This view seems irreconcilable with the previous view as to the demonstrability by the pure understanding of the properties of the triangle. It seems also scarcely possible to hold, as he does, that imagination is essentially to be distinguished from the understanding by the fact that the former, but not the latter, acts in time. For the imagination is a part of the body, situated in the brain (*Regule*, xii.), which is surely part of its essential difference from the understanding. M. Boutroux points out that Algebra, for Descartes, has to borrow its definitions and axioms from Geometry, and in this way makes use of imagination; and that the practical utility of symbols depends upon their being imaginable. Descartes' universal mathematics is regarded as a youthful dream, which he afterwards abandoned. Demonstration, we are told, is not properly an affair of the understanding, for, from the point of view of the understanding, one proposition does not precede another or give its reason. This view, by the way, though probably Cartesian, is certainly false. The volume ends with two appendices, one on *Victa*, pointing out that he was more dependent on imagination than Descartes, the other on the differences between the *Regule* and later works.

Though many of Descartes' remarks on mathematics are excellent, his theory of the imagination appears thoroughly erroneous—so much so as to possess nothing but a historical interest. But such as it is, the theory has been clearly, and, I think, correctly, set forth by M. Boutroux.

B. RUSSELL.

VI.—NEW BOOKS.

Ethics: Descriptive and Explanatory. By S. E. MEZES, Ph.D., Professor of Philosophy, University of Texas. New York and London: Messrs. Macmillan & Co., Ltd., 1901. Pp. xxi., 435. Price 10s. 6d. net.

In this book, Prof. Mezes claims to give a scientific account of morality, without prejudice to the metaphysic of ethics. His aim is to investigate ethical phenomena purely on the basis of experience, refraining even from giving an estimate of their value. Yet, experience is to be widely interpreted, embracing the past as well as the present, and paying due regard to uncivilised as to civilised races. The methods also are various; introspection alone not being sufficient. Help is to be sought from every available source, and more especially from the study of origins.

After two chapters of an introductory character, the work is divided into two parts—the first devoted to consideration of subjective morality (extending from chapter iii. to chapter viii.), and the second to consideration of objective morality (chapters ix. to xv.). By subjective morality is understood what rightness means to the agent himself; and so part i. is occupied with a discussion (*a*) of voluntary action, and (*b*) of the individual conscience (its nature, its cause, its origin, and its development). By objective morality, on the other hand, is designated "the body of actions vouched for as moral by the standard or wise conscience"; and the topics treated under part ii. are the cardinal virtues (here set down as five) and welfare.

The concluding chapter (xvi.) of the treatise sums up the subject, and makes a few remarks on the value of morality. A tolerably full Index completes the volume.

As will be seen from this brief outline, the writer's object is a decidedly limited one. By restricting it so, he not only gets rid of the metaphysical issues, but also feels justified in ignoring many of the puzzling questions in psychology. His *rôle* is simply that of a describer, explaining as he goes along by giving an account of how the various ethical principles and conceptions have come to be. And, in unfolding his subject, he has the merit of adhering consistently to the plan laid down. He is also, for the most part, thorough in his handling; the topics as they appear being expanded with elaboration, and sometimes with an exhaustiveness that borders on prolixity. The work cannot be said to be in any remarkable degree original; but it is executed with care and patience, and written in a style that is clear, though not always free from faults in grammar, or from an un-English use of words and phrases. It is characterised, further, by good psychological analyses, and by sound common sense, which frequently takes a practical turn. This last characteristic is most prominent in the handling of the virtues.

As good an example as any of Prof. Mezes's powers are the chapters on

Conscience, under subjective morality, treating of the adult conscience, the psychic cause of conscience, the birth and growth of conscience in the child and in the race. Although reproducing in part, as needs must be, the investigations of others, they are marked by real insight, and show at its best the virtue of the genetic method in the handling of ethics.

Less satisfactory is his handling of voluntary action. Too many questions are passed by, being referred to the text-books on psychology; and also the analysis of Will is inadequate. Had Prof. Mezes gone back to Aristotle, he would have been guided to a completer presentation of volition. At any rate, he would have been impressed with the necessity of taking Will in connexion with Desire and of giving some explicit exposition of the latter.

So, too, his position that only voluntary actions are moral phenomena is a very obvious one; but it is not so obvious that "neither emotional states, intellectual states, nor fixed habits are moral phenomena". True enough, emotional states in themselves are not moral phenomena, but they become so when they are brought within the range of self-control; for, then we contract a responsibility regarding them, inasmuch as their intensity is, in part at least, regulated by the degree of attention we accord them. In like manner, intellectual states are regulated by attention, and thus come under the will and may have a moral aspect; and, as to fixed habits, these, in so far as fixed, are removed from the ordinary control of the will, but, as a habit is formed voluntarily, it may seriously be questioned whether any habit is ever so absolutely fixed as to be excluded, under every conceivable set of circumstances, from the will's influence.

In his section on objective morality, the author is concerned with the question of the ultimate end, which he makes out to be sentient welfare or "the common good of all co-operating sentient beings"; and the greater part of the exposition consists in a detailed handling of the cardinal virtues. These are maintained to be five in number, *viz.*, courage and temperance (involving the will), benevolence (attaching to feeling), justice and wisdom (which are specifically intellectual). This list, the author holds, "is at once adequate and compact, covering the whole field of morality, but covering no portion of the field twice". It can hardly be said that his own treatment bears out this estimate. That there is overlapping among the five virtues becomes very apparent as the exposition proceeds; and it is difficult to persuade oneself that there are not also grave omissions. Take Humility, for instance: where is its place in the classification? Doubtless, by a Procrustean process it might be possible to fit it to one or other of the five forms, but not satisfactorily. Humility is neither courage nor temperance, although, under certain circumstances, it may assimilate itself to either. It is not benevolence, although in certain aspects it faces that way; nor can you, except in a special context, designate it justice or wisdom. It is a quality of character quite distinct, and, in civilised communities, prompts to actions that minister to social welfare. That, according to Prof. Mezes's own test, gives it a right to a separate place in the treatment of objective morality.

So, too, with Truthfulness—which is here unmentioned. Not only is this one of the most important social virtues with a quality of its own, but it also presents peculiar difficulties needing to be carefully elucidated, and it lends itself in a very special manner to the historical mode of treatment that Mr. Mezes delights in.

The characterisation of the five virtues selected for consideration

becomes very much, in the hands of the author, distinct character-sketches of the virtuous man in his five-fold aspect—the courageous man, the temperate man, the benevolent man, the just man, the wise man. These are, in the main, successful; but the sketch of the wise man is slight and not sufficiently vital to be effective.

WILLIAM L. DAVIDSON.

The Adversaries of the Sceptic, or the Specious Present: a New Inquiry into Human Knowledge. By ALFRED HODDER, Ph.D. London: Swan Sonnenschein & Co., Limited; New York: The Macmillan Co., 1901. Pp. iii., 320. Price 6s.

The sceptic is Dr. Hodder. His adversaries are Mr. Bradley and Prof. Royce. He poses as "the defender of the Specious Present as the starting-point of thought against the defenders of mere postulates," professing a "scepticism" that is a "solipsism of the Specious Present". His position, however, is neither sceptical nor solipsistic in a 'constructive' sense. He does not 'positively deny'. He does not assert 'I am really All'. In fact, he talks black and thinks drab—perhaps a not unpardonable device on the part of one whose literary object is evidently to shock. Yet Dr. Hodder would not shock us out of our senses so much as back to them. "Naïve realism," in regard to metaphysics and ethics alike, is the moral of this eminently readable, though shockingly misprinted, book—the 'doubtful' moral, let us hasten to add, lest we fail to do full justice to the principles of its author.

Dr. Hodder's "logic" is a "psychologic," and claims to be based on indubitable "fact". So much we are told; but otherwise little trouble is taken to keep foundation and superstructure distinct in the interest of the reader. The latter is left to divine as best he can what that ultimate "fact" is which the sceptic is prepared to swallow, or rather which willfully swallows him. The indications, however, point to its being the following—that there is a "real" basis of vivid "presentative" elements intuitively given in any experience, however momentary, which basis of itself distinguishes itself from any "representations" it may seem to support, such as those of a past or future. We are informed that we are standing in one of those circular panoramas which have their foreground built up of solid things and the background painted in. "Introspection," it is asserted, will always enable us to detect where three dimensions give place to two, where presentness—the here and now as it is in itself—shades off into the "make-believe" of presentness. The "mode of existence," the "essential stuff" of present reality and present make-believe of its own accord proclaims itself different.

What follows? As against 'absolutism' in metaphysics it is supposed to follow that there can be no 'necessary' postulates, presuppositions, implications, of thought in virtue of any activity it may seem to display. 'I judge, therefore a standard of judgment is,' cannot but be inconclusive, since I do not know myself as judging "of" and "about" in *any* sense and to *any* purpose with that perfect presentative sense of assurance wherewith I know, that is, am "acquainted with," the here and now in the intuition *cogitatur ergo est* (as Leibnitz would have put it). Nor is the 'voluntarist' view of postulates held to be much, if at all, sounder than the absolutism it seeks to displace. The constructions of representative thought at their least invalid are no outcome of a 'will to believe'. Within the problematic region of the representative those collocations of symbolised experience which present themselves "unforced" distinguish themselves by a sort of reality of make-believe from those which 'we' call into being by the aid of "imagination".

It will be noticed that the foregoing argument against absolutism bases itself on quite a different kind and order of "fact" to that contemplated in the argument against voluntarism. To the "logic" of the former the scepticism of its upholder—or rather vehicle—offers no objection. And yet here there was surely something for him to cavil at. Since his "reality" is not one with the bare givenness of experience as a whole, but falls within that givenness as a special kind of givenness, namely, presentativeness, it has surely at best but the relative character (whatever be the degree of vividness attaching to it in what we distinguish as feeling) of a substratum, ground, or what not, of representative consciousness. But no. Intuition and vivid feeling and reality are something absolute and apart, and yet there are representations purporting to be of something about which we are not allowed to say that it absolutely is not. For our Solipsist of the Specious Present is half-hearted. We read that the limits of the here and now are "as walls pierced with windows," and that "what is dimly seen is seen". The precise ontological status attributed to the dim view commanded by these windows is that it is the possible or at any rate the not-impossible. In which world of precarious being "fact" of a kind, as we have seen, is nevertheless able to distinguish itself from "fiction". Man knows himself most distinctively as the father of lies. The test of "fact" at this stage is unforcedness, spontaneity (as contrasted with the will!) pertinacity, predominance and permanence. Perhaps it is just as well for us that certain 'useful lies' are uncommonly pertinacious in their way!

The corollary of all this is naturally hedonism. Pleasantness in the sense of a felt "welcomeness" occurs as *fact par excellence* (fact of the inferior second kind, of course) in our forecasts of the future. Motive, meanwhile, is simply forecasted fact and nothing 'we' make, volition being but the selection of means whereto we are driven by the precarious, yet inexorable, "logic" which posits the end. Desire and Will, however, it is admitted, are, *qua* facts, amongst the grounds of inferential forecast. Room thus would seem to be left for a paradoxical hedonism which should assert that the desire and will to do right without regard to consequences in the way of unideal and vivid pleasure are of all the facts relating to morals precisely the most "pertinacious" and most instinct with "welcomeness". Dr. Hodder, however, does not seem so strong on the side of history as on that of introspection—to judge, at least, by his Thrasymachean harangue on the subject of the "Morality that Is".

So much, then, for this "new inquiry" which urges most of the old things that have been said on behalf of 'objective' *versus* 'subjective' absolutism in a fresh and spirited, if somewhat mazy, way. Dr. Hodder's "adversaries," however, are likely to remain unconvinced. They will ask him to turn his scepticism against that "specious present" of his which bears so suspicious a resemblance to the phenomenon of that name which certain psychologists declare themselves to have timed by the aid of a stop-watch. Once "we" are got well into "time" by the aid of a psychological catch-word, it is comparatively easy to prove us superfluous or worse, our affirmations of the pre-existently firm being echo, when valid, and, when invalid, presumably the devil.

R. R. MARETT.

Peter Abélard. By JOSEPH McCABE. London: Duckworth & Co., 1901.

This is a very unsatisfactory book. The 'monastic, scholastic and ecclesiastical experience,' on the strength of which Mr. McCabe considers that he 'may approach the task' of giving a 'complete study' of

Abelard 'with a certain confidence' has perhaps enabled him to sympathise to some extent with the great teacher's bitterness of spirit, but that is all. It is unnecessary to dwell on the evidences of a lack of good taste in style and temper which the book exhibits, or to enumerate the many inaccurate and loose statements which may be found in it. From the point of view of the readers of *MIND*, as an account of Abelard's philosophy, it is utterly worthless. It is no doubt true that the exact logical doctrine of Abelard (why, by the way, does Mr. McCabe prefer the indefensible hybrid form *Peter Abélard*?) is difficult to discover, but Mr. McCabe does not touch upon it at all, beyond some cheap scoffs at the discussions on the nature of universals carried on in the twelfth century, scoffs which are not made at all more impressive by the information that the author has 'sat on the chair of scholastic philosophy and held grave discourse on genera and species'. He succeeds better in stating the importance of Abelard as a theologian; but his contempt for speculations connected with the doctrine of the Trinity (speculations full of significance for Abelard) is too great to allow him to give the reader any intelligible account of what Abelard held or did not hold on this matter; and the fact that in his version of Abelard's description of the council of Soissons he omits one sentence, the omission of which entirely deprives of its point the otherwise amusing story of the papal legate who was drawn into a direct conflict with the Athanasian creed, sufficiently indicates the uncertainty of his touch when dealing with this part of his subject. Even with the external side of the history of philosophy in Abelard's day, Mr. McCabe can have but a superficial acquaintance. Otherwise he would have hesitated to think it possible that Abelard knew Aristotle's *Prior Analytics* and *Topics* (a view which he attributes, without apparent ground, to Cousin, who knew better), or that he might have 'approached the easy Greek text of the New Testament'; he would not have spoken of the currency of a translation of the *Timæus* in twelfth-century France as a fact which might be questioned: he would perhaps have asserted less boldly that Erigena was 'well remembered' in Abelard's time. Abelard was a great thinker and a great sufferer; a martyr for intellectual freedom and a teacher who did much to determine the subsequent course of intellectual progress in Europe. In Mr. McCabe's book he appears as the hero of a shallow and arrogant secularism. No doubt he was a man of a haughty and revolutionary spirit; pride and mockery came easily to him; but this negative or destructive side of his intellectual character, which alone appeals to his present biographer, was not the only side which it presents. He cannot be rightly understood if we ignore the positive and constructive aspect of his nature, on which he was as deeply interested in the problems of his age and resolved to understand them, as he was impatient of the acquiescence in mere traditional formulæ as affording a solution of them. One may share Mr. McCabe's regret that we have not received a complete study of Abelard from Mr. Poole; it is impossible to think that Mr. McCabe has done anything even temporarily to fill the gap. We may conclude by hoping that no one will be misled by Mr. McCabe into supposing that the *Confessions* of St. Augustine and the *Historia Calamitatum* of Abelard are at all alike, except in that both are autobiographies; and by recommending to Mr. McCabe's attention as a student of mediæval thought the masterly contrast and comparison between St. Bernard and Abelard's successor as the object of Bernard's persecuting zeal, Gilbert de la Porrée, drawn by the hand of John of Salisbury, the friend of both and the pupil of Abelard himself, in his *Historia Pontificalis*.

C. C. J. WEBB.

The Life of Henry Calderwood. By his Son and the Rev. DAVID WOODSIDE.
London: Hodder and Stoughton, 1900. Pp. viii., 447.

The authors of this volume are to be congratulated on an excellent piece of work. The biography is shorter than one would have expected the record of such an extraordinarily full and active life to be. Yet within the limits to which the authors have chosen to restrict themselves they have given a most successful and interesting account of Prof. Calderwood's life and work. While making a rapid survey of his public career and work their main object, they have not failed to present with sufficient clearness the principles and views which determined his action on all the more important and often difficult and disputed questions with which he had to deal in his various capacities as educationist, citizen, and churchman. Their narrative has, besides, the merit, of leaving the reader with a strong impression of those qualities of mind and character which made Calderwood's work what it was—his clear-headedness, his resoluteness of will joined with a most conciliatory temper and great kindness of heart, but above all the strenuous moral purpose which was manifest in every action of his life, and gained him the profound respect and confidence of all those who knew him or came under his influence. This influence of his personality is rightly emphasised by those who have contributed recollections of him as a teacher.

A short but admirable sketch of Calderwood's philosophical writings by Prof. Pringle-Pattison concludes the volume. It is unfortunate for Calderwood's philosophical reputation that his most important work belongs to an almost forgotten controversy, and is consequently little read. Written within a few years after he had passed through Sir William Hamilton's classes, his book on *The Philosophy of the Infinite* showed not merely great courage and independence of thought, but also a remarkable insight into the real weaknesses of Hamilton's position. Thus, to take only one of the passages here quoted, when he argues that "whi it is true that the finite mind cannot have infinite thoughts . . . [it is] equally true that the finite mind can have finite thoughts concerning an infinite object," he unquestionably fastens upon a most fundamental distinction, and one which renders much of Hamilton's argument untenable. It is interesting to read (p. 197) that he had at one time formed the project of writing a popular exposition of moral philosophy, in which, it may be conjectured, the more practical parts of the subject, which are very briefly treated in his published text-book, would have held a prominent place. And it is certainly a matter for regret that this project of a work, for which he was peculiarly fitted by his practical wisdom and experience, was never carried out.

Chapters from Aristotle's Ethics. By J. H. MUIRHEAD, M.A., Professor of Mental and Moral Philosophy, Mason University College, Birmingham. London: John Murray, 1900. Pp. xiv., 319.

This modest production possesses the characteristic merit of Prof. Muirhead's work, *viz.*, that of fulfilling the purpose for which it is intended. No attempt is made to step outside the definite limits laid down, but within those limits all is clear, well-arranged and complete. The special object of these 'chapters' is "to bring some of the leading conceptions of the *Ethics* into connexion with modern ideas for the sake of the general reader". Their original form was that of a course of lectures to teachers, and the special reference throughout is to persons engaged in educational work who know no Greek.

The first, and larger, portion of the book consists of thirteen lectures

upon Aristotle's conceptions of Virtue, Happiness, Friendship, etc.; the remainder of an English version of the 'Selected Passages' upon which the lectures are based. The version succeeds, without sacrifice of accuracy, in reproducing Aristotle's doctrine in a manner more readable than is usual, or indeed possible, in a translation intended for the use of students. The only serious fault is the use of the word 'soul' (both in the version and throughout the lectures) as the rendering of $\psi\upsilon\chi\acute{\eta}$. This conventional equivalent has its dangers even for scholars, and nothing, surely, could be more misleading to the 'English' reader. The lectures combine the advantage of a historical, with that of a scientific, introduction to the study of Ethical questions. The idea was a happy one and has been excellently worked out, while upon some points—e.g., the relation of Habit to Choice, the educational value of Friendship, the psychological nature of Pleasure—Prof. Muirhead's treatment will give food for thought to readers who are beyond the introductory stage.

W. H. FAIRBROTHER.

Government or Human Evolution; vol. ii., *Individualism and Collectivism*. By EDWARD KELLY. London: Longmans, Green & Co., 1901. Pp. xv., 608. Price 10s. 6d.

The second volume of Mr. Kelly's *Government or Human Evolution* is devoted to a criticism of Individualism and a vindication of Collectivism. The initial difficulty of Mr. Kelly's argument is that it starts from the conception of these rival abstractions as if they were final and real (e.g. "the fact that pauperism, prostitution and crime are the necessary (*sic*) attendants and products of individualism is a sufficient reason for questioning its claims"); and his whole historical review of Individualism may be said to proceed upon an abstraction, the result being that his logic of social and economic causation will appear to many minds as "unequal to the subtlety of Nature". It is doubtful at any rate whether it will carry conviction to any one who is not already in favour of the thesis to be maintained. There is, we think, a substantial truth in Mr. Kelly's position; but certainly he is very free with generalisations of a kind which suggest that he has not been too careful to verify his references. They are generalisations which would certainly be very interesting if they were true; but we are a little afraid that they may indispose the exact reader for the more constructive part which follows; and this is really an eminently reasonable and "presentable" statement of the case for collectivism. Mr. Kelly is careful to emphasise the distinction—essential to any profitable estimate of its claims—between collectivism as a method or programme of social reform and collectivism as an ideal condition of society. He has not altogether succeeded in avoiding the "Utopian" aspect of collectivism; but, taken as a whole, Mr. Kelly's statement of the collectivist case is commendably tentative and elastic; his earnestness and enthusiasm are tempered with judgment and discretion. The statement, however, would have been better if it had been shorter. This is not the place for any examination of Mr. Kelly's argument; his definitions may not always be exact enough for the philosopher, and he occasionally uses terms like "social mind" in a somewhat disconcerting sense; but there is nothing in his philosophy that should offend any but an "individualist" pure and simple, and there is much in it that invites favourable comparison with the "social philosophy" of professed philosophers. It may be pertinent, however, to remark that Mr. Kelly's comment on Aristotle's definition of virtue was perhaps unnecessary; it is certainly wrong.

SIDNEY BALL.

Outlines of Educational Doctrine. By J. F. HERBART. Translated by A. F. LANGE. Annotated by C. DE GARMO. New York: The Macmillan Company, 1901. Pp. xi., 334.

This work, as the Preface does *not* inform us, is an annotated translation of the second or 1841 edition of Herbart's *Umriss pädagogischer Vorlesungen*. It may also be added, for the benefit of the uninformed reader, that the paragraphs headed *Note* are by Herbart himself, and not by his present commentator. Some confusion on the point might, indeed, arise, even in the minds of those who had read Herbart: for in certain cases the commentator has, without sign or warning, interpolated remarks of his own in Herbart's text.

"The reasons for translating and annotating Herbart's *Outlines* are, first, to present to the English-speaking public Herbart's latest, and also his most complete, work on education; and, second, to note . . . the advances made in educational thought since Herbart laid down his pen." Both aims are praiseworthy. It may be feared that the immediate effect of the book will be to increase the present lamentable Herbart-worship; but, after all, the better Herbart is known at first hand, the more truly will he, in the long run, be appreciated. As for execution: the first part of the translation is decidedly good, the latter part slovenly. The notes by Prof. de Garino are of the practical or 'common-sense' kind; they have nothing of theoretical import, and show no sense of historical perspective. They vary greatly in value: some, by the sharp contrast of old and new, are really illuminating; many are platitudinous. "Combats of any kind between teacher and pupil are to be deplored," certainly, but it is hardly necessary to print the remark; and similar statements are all too common. The book is well indexed.

The Mental Life of the Monkeys. By E. L. THORNDIKE. *Psych. Review Mon. Suppl.*, No. 15. May, 1901. Pp. iv., 57. Price 50 c.

This paper describes a series of interesting, if somewhat fragmentary, observations upon three *Cebus* monkeys. The experiments were in part similar to those previously performed by the author upon dogs and cats. The monkeys show progress towards human mentality (1) in sensory equipment (focalised vision); (2) in motor equipment (co-ordination of hand and eye); (3) in instincts or inherited nervous connexions (general physical and mental activity); (4) in their method of learning or associative processes (quicker formation, greater number, delicacy, complexity and permanence of associations). In *method* of learning, however, the monkeys do not advance far beyond the generalised mammalian type; there is at any rate no large stock of 'free ideas' in the author's sense of definite and discriminated presentations.

The author, apologising for the lack of clearness and completeness of the monograph, finds his excuse in the inconstant and variable conduct of the monkeys themselves. We are grateful for what he has given us, and shall be glad to receive further instalments.

Notes on Child Study. By E. L. THORNDIKE. Columbia Univ. Contrib. to Phil., Psych. and Education, viii., 3-4, June, 1901. New York: The Macmillan Company. Price \$1.00.

"These notes are printed primarily for the use of my classes . . . and are subject to revision. It is my intention to issue a new edition yearly. They are incomplete and ill-proportioned, and probably somewhat biased

by the author's personal views." So runs the introductory statement, by which the critic is at first disarmed. A reading of the *Notes*, however, does much to cancel his favourable impression of the writer's modesty. It is to be regretted that he did not rest content with 'private circulation,' and wait a little before publishing. As it stands the work is not such as we have a right to expect from Dr. Thorndike.

A Text-book of Psychology for Secondary Schools. By D. PUTNAM. New York: Amer. Book Company, 1901. Pp. 300. Price 90 c.

This book represents the conscientious and painstaking work of a practical teacher. Nevertheless, it is precisely the type of book which the modern psychologist must regard as unfitted for secondary school use. It consists, almost entirely, in an analysis of concepts, and seeks to include within its 300 12mo pages a sketch of the nervous system, an analytic psychology, a logic and an ethics. Mind is defined, on the fifth page of the text, as "the Ego, the I myself; that which knows, feels and wills. We assume at the outset that there is a soul, that it is immaterial, that though intimately associated with matter it is distinct from matter." And where the pupil should be engaged in simple introspective exercises, he is given a surfeit of quotation: Ladd and James, Lindner and Scripture, Hall and Le Conte, Davis and Compayré, all figure in the first six pages! This is not the way to arouse interest in psychological problems.

The Principles of Human Knowledge. By GEORGE BERKELEY. Edited by T. J. McCORMACK. Chicago: Open Court Publishing Company, 1901. Pp. xv., 128. Price 25 c.; 1s. 6d.

This volume of the Religion of Science Library contains a reprint of the *Principles* from the edition of 1734, together with the dedication and preface of the edition of 1710. There are, further, a facsimile of the title-page of the first edition, and a portrait of Berkeley by Smibert. The Editor's preface reproduces, with some additional remarks, the sketch of Berkeley's life and aims given in Lewes' *Biographical History of Philosophy* (1845). The publishers are doing good service with these cheap philosophical reprints: the books are light in hand, and the text clear. But the cover of the present volume is hideous.

The Art of Study: a Manual for Teachers and Students of the Science and the Art of Teaching. By B. A. HINSDALE. New York: American Book Co., 1900. Pp. 266. Price \$1.00.

"The ultimate object of this book is to place the Art of Study as a tool or instrument in the hands of pupils and students in schools." In other words, it is an essay on the psychology of acquisition, written from the teacher's standpoint, and made as practical and as little technical as possible. Five of the twenty-two chapters are devoted to Attention, and one to the relations of Feeling to study and learning: the rest are rather pedagogical than psychological in character. The author follows James in his psychology, and the modern Herbartians in his educational doctrine. His theories do not always harmonise, as, indeed, is the rule in works upon applied psychology: but the discussions, on the whole, are clear and sensible, and the work should have a distinct sphere of usefulness.

An Experiment in Education: also the Ideas which Inspired It and Were Inspired by It. By M. R. ALLING-ABER. New York: Harper Bros., 1899. Pp. ix., 245. Price \$1.25.

The aim of the author's 'experiment,' begun in 1881, was "to see if the child may not be introduced at once to the foundations of all learning—the natural and physical sciences, mathematics, literature, including language, and history—and at the same time be given a mastery of such elements of reading, writing, and number as usually constitute primary education". The chapters detailing the experiment itself are reprinted from the *Popular Science Monthly* for 1892, and are followed by discussions of the underlying ideas, of the teaching of special subjects, and of the 'atmosphere' of schoolrooms. The author remarks, with justifiable pride, that "all which her experiment was meant to demonstrate as feasible now bids fair to become the common usage in education". The book is of interest to students of applied psychology.

Three Dialogues between Hylas and Philonous. By GEORGE BERKELEY. Chicago: Open Court Publ. Co., 1901. Pp. vii., 136. Price 25c.; 1s. 6d.

This is the latest number of the very useful series of Philosophical Reprints now in course of publication by the Open Court Company. It contains a portrait of Berkeley from the engraving by T. Cooke (the reprint of *The Principles of Human Knowledge* reproduced the picture by Smibert, now in Yale University); a brief editorial preface by T. J. McCormack, illustrating Berkeley's home in Rhode Island; a facsimile of the title-page of the original edition of 1713; the dedication and preface (omitted in the 1734 edition); and the text of the dialogues.

Le Problème de la Vie, Essai de Sociologie Générale. Par LOUIS BOURDEAU. Paris: Félix Alcan, 1901.

The Problem of Life is a posthumous work of the well-known positivist teacher, Bourdeau, written when he was almost seventy years of age, but showing no falling-off either in intellectual vigour or in imaginative power. Its scope is of the widest—the nature of life, its cause, *raison d'être*, its end in the order of the world: the method is the well-worn one, so often the prelude to the wildest metaphysics, *viz.*, "the inductive extension of the sum total of best established knowledge" to the unknown beyond, the realm of probability: the hope is to found at once "a positive metaphysics," and "a scientific religion".

The first book—"Analysis of Individual Life"—is on familiar lines; it treats of the individual organism from the two standpoints of Somatism and Psychism, although psychical and physical are merely different attributes of being. On the Somatic side the general life of the organism is the sum of the particular lives of its constituent organs and parts, but at the same time "directs" the forces contained in these lives. There is, as the structure of the human body shows, an autoplasmic, self-directing influence in each organism, a design pursued, a task realised. A series of fortuitous accidents would not account for any living body, but, underlying the growth of each there must be "a profound thought, which may be unconscious of itself, but is none the less real"—an internal and spontaneous finality. No conception seems to have been present as to the utter contradictions involved in these statements.

So on the psychic side, one soul is the collective expression of a

number of partial souls, those of the subordinate centres, which possess only a restricted consciousness. "The unconscious is the dark or night side of psychic life, giving only vague glimmers of light, and is none the less real, though more obscure, than the side brought into light by the full day of inward sense" (pp. 53, 54). Thus, with virtuous consistency, Bourdeau traces the psychic life of the individual to that of its constituent cells, then its plastides, its protoplasm, and finally to that of matter itself. The attraction and repulsion, action and reaction, everywhere manifest in "dead" matter, represent the beginnings, the elements of the animation (external and internal) that living nature reveals. In the simplest movement is expressed an active force, a tendency, a need felt, the germ of intelligence and will. Here is a bold principle, "As everything which lives *feels* itself live, so everything which is must *feel* itself being, under penalty of non-existence". This is a positivist induction!

In the second book—the "Synthesis of Collective Life"—Bourdeau's naïve metaphysics gives us a system to which one can hardly deny a tribute of admiration, however widely it seem to contrast with the method laid down at the beginning. Societies, the family, the crowd, the state, humanity—all these are new organisms whose members function in a common life, and constitute together a real being, a distinctive personality, with life, soul, passions, ideals, will, energy of action. With Izoulet, these beings are classed after protozoa and metazoa, as "hyperzoa"—their souls "hyperspirits"! The soul is not, however, any more than the soul of man, a substance—that *bête noire* of Positivism—but a "unified sum of psychic phenomena" (p. 110). Just as in us the conscious self is both the resultant and the synthesis of all the cellular consciousnesses, so the rational soul is the resultant and synthesis of all individual consciousnesses, dominating, co-ordinating, generalising their activities. Reason, by the way, is the soul of humanity: it is "an *ensemble* of psychic functions, co-ordinated," and so differs in some unexplained way from the concrete reality of "metaphysics" (p. 122). Humanity then is conscious of itself, has its ideal, its will-to-live, at which we can but guess: hence the gradually unfolding plan we observe in the life of the race, the spirit of the whole directs particular activities, "ranging them towards ends of which they are ignorant, causing the finalities *d'ensemble* to prevail over individual caprice".

Beyond humanity are still higher, more comprehensive organisms, or hyperzoa: the animal kingdom, then the world of all living things, animal and plant alike, then the earth as a whole. As life is a natural growth out of inorganic matter, the latter must possess in a *virtual* state all the phenomena of life, a latent life; and along with it a *virtual* principle of animation, a latent psychism. It is one and the same fund of spirituality, which, "imperceptible in the elements, indistinct in the mineral, dormant in the plant, awake in the animal, reflective in man, animates in diverse degrees all beings and excites them to action". So the terrestrial globe has a living soul, a powerful individuality, directing the actions of all living beings within it to a given end (p. 196): not, however, an extrinsic, pre-ordained end, a design formed *a priori*, executed *a posteriori*, but an intrinsic finality, concomitant with the effects it governs, exercised in every (higher) being through the organising power of its own elements (p. 78).

Next in order are of course the Solar System, the Interstellar System, the Nebular System, and highest of all Universal Nature, or the Ether, out of which all things have developed in an order which implies a guiding spirit, a fund, in the Ether, of *psychic virtuality*. The Ether

alone, in effect, possesses the attributes hitherto given to imaginary deities, of being "by itself," of determining and of directing all things (p. 243).

The Ethics suggested by the system is not of a more inspiring type than ordinary positivist schemes. Evil arises from the necessary conflict between the individual and the whole of which he forms a part, on the one hand, the parts of which he constitutes the whole, on the other. In man the conflict is between the spiritual ideal and the bodily needs, between the claims of different organs, of different mental faculties—"we pass from illusion to disgust, from enthusiasm to disenchantment, without meeting, among the innumerable aspects of beauty, any delights which endure, ever by the new seduced, pleased, deceived" (p. 290). The same conflict exists among the higher groups, only in the whole is there perfect harmony: what to the individual is evil, is to the whole an element of progress. Death, for example, is the renovator of nature, only the primordial substance and the One-all are eternal and infinite. Immortality of the individual, an elysium without evil, are alike illusions. Yet even for the individual, good is prepotent, a statement for which the only ground given is the curious one that individuals desire to live!

Bizarre, romantic as the system is, the work is not without its value, if only for the consistency (in inconsistency) and the boldness of the speculation it contains.

J. L. McINTYRE.

Essai Critique sur le Droit d'Affirmer. Par ALBERT LECLÈRE. Paris: Félix Alcan, 1901.

M. Leclère is of the school of Idealism which seems to flourish at present in France. His work is avowedly an attempt to revive Eleatism, as he understands it, the view, namely, that "non-being"—i.e., the world of phenomena, including all the facts of psychology—is absolutely non-existent, that "what is" is the object of, and is one with, thought-in-itself, that the principle of identity is the only criterion of truth. The greater part (chapters iii. and iv.) deals with the contradictions which analysis of phenomena, as individuals, and as a whole, reveals. The idea of consciousness, of the empirical or individual consciousness, and along with it all ideas of phenomena, and hence (?) phenomena themselves, as spatial, temporal, numerical facts, are shown, in familiar Hegelian fashion, to imply either in themselves, or in their connexion with one another, insuperable difficulties. Thus science, as commonly known, is an illusion; if it existed, its object would not be the real. All mental activities alike, intuition as well as induction and deduction, are contradictory, self-negating processes, while their data are illusory.

In the constructive part of the work (chapters i. and v.—chapter ii. contains an exposition of Eleatism) there is more novel matter, although not easy to reconcile with the destructive part. *Truth* is what is posited as true, what is affirmed: affirmation is an act of the subject of which the immediate result is the idea that he, the subject, is in possession of truth. The certainty it gives is immediate and absolute, there can arise no question as to the *right* of affirmation. Truth always seems imposed on us from without—it is impersonal. Its subjective guarantee is the force with which the proposition is affirmed in us. Certitude is thus, literally, incommunicable, it is the result always of effort and of search, and cannot anticipate them. As in morals the secret of perfection is self-forgetfulness, so in speculation "the condition of certitude is the practice of thought without preoccupation about certitude" (p. 30).

So much being granted, the rest is easy; the only idea which M. Leclère finds to survive critical destruction is the idea of *thought-in-itself*. Every affirmation appears as affirmation of a real truth, external to the thought which thinks it, not internal, subjective, floating: it springs from our will—not the free, reflective will, but—that profound will which appears to belong rather to our nature, than to ourselves, as the source of decrees proclaimed in us (p. 181). This 'real truth' is thought-in-itself, at first a pure form, but one which brings forth its own matter, if allowed free play. The sum of this matter, or content, is that Being is, that it is "in itself," *i.e.*, is activity; that it is "for itself," *i.e.*, is thought; that it is freedom and love. But thought, love, freedom constitute personality—Being then is personal. On the question whether there is one or many Beings, the author's dogmatism fails him: there is nothing contradictory in a plurality of beings, since there may be diversity of degree in thought, love, freedom, and in the heart of Being is an "indefinite spontaneity". His hypothesis is that there is one wholly independent, self-positing Being—God—and at the same time many Beings, receiving from God the power of positing themselves, and so of consenting to be voluntarily what the plan of God would have them to be: and so a comfortable opening is allowed for morality and Religion into the world of 'Reality'. But even Science is not wholly excluded, for by a curious twist, a 'partial' truth is found even in the facts of Science. There is no absolute error, every thought is truly true, although more or less. Contradiction is only in ideas, not in facts, which are independent: every activity of mind is legitimate, so long as it is possible: to be true, it has only to satisfy thought. All knowledges, apart from the one system, are to be considered not as so many variations upon the same theme, but as different airs having no real connexion among themselves (p. 209). How far this conception of knowledge is either satisfactory in itself or consistent with the author's own assertion that all science is pure illusion, pure nothing, it is hardly necessary to question.

J. L. MCINTYRE.

Saint Augustin. Par l'Abbé JULES MARTIN. Paris: Alean, 1901. Svo, pp. xvi., 403. Price 5 fr.

This work falls into three parts, of which the first is devoted to Knowledge; the second, to God; the third, to Nature. The author confines himself in the main to exposition, and travels but seldom, even for illustration, outside the writings of his subject. This method is not without its advantages, and has resulted in a very useful and interesting volume. At the same time, the student of philosophy will be most interested in the first book, which deals with Knowledge, and will be tempted to leave the remaining two books to professed theologians.

M. Martin is almost exclusively occupied with the attitude of mind which Augustine assumed upon his adoption of the Catholic faith, and to which he adhered, with little variation, until the end. But it would be profitable to consider at somewhat greater length than M. Martin has done, the history of Augustine's mind, and especially the sceptical temper with which he began. I think it might be said that he passed from one side to the other of the controversy which occupies the *Academica* of Cicero: a treatise very familiar to Augustine. The New Academy first claimed him with its balance of probabilities before he adopted the Stoic doctrine of the criterion of truth—that 'irresistible impression' which was accepted by him as fairly describing the way in

which truth announces itself. Again, he shook himself free of another tenet which comes more directly from Plato. At first he uses 'reminiscence' in order to explain the disclosure of ideal truth. Later he reduces 'reminiscence' to a metaphor. 'When we learn, we discover in ourselves, and so to say we bring to light buried doctrines' (p. 56). Instead of 'reminiscence,' Augustine speaks of an eternal reason through which truths are disclosed. 'The ignorant have present, so far as they can perceive it, the light of the eternal reason, and in this light they see these immovable truths' (*ib.*, cf. *Conf.*, x., 10). And, in passing, we may note that Siebeck, in his *History of Psychology*, attaches undue importance to 'reminiscence' in his account of Augustine (i., ii., 390).

M. Martin does not seem to me successful when he attempts to find the unity of the soul clearly affirmed by Augustine (pp. 69 ff.). On the contrary, the unity of the soul is not attained except as it is concentrated upon an eternal object—a concentration which is imperfect in all experience as we have it (cf. p. 74). And here we may note Augustine's curious use of 'memoria' almost as a synonym for consciousness—'tāquam ipsa (sc. anima) sit sibi memoria sui' (p. 62).

I have dwelt rather upon topics which invite criticism, than upon the undoubted merits of M. Martin's volume. Let me say, in conclusion, that he furnishes himself the materials by which he may be criticised, and that, so far as I have been able to test the references, his translations are throughout felicitous, and his exposition, in the main, relevant and correct.

FRANK GRANGER.

Maine de Biran: Ein Beitrag zur Geschichte der Metaphysik und der Psychologie des Willens. Von ALFRED KÜHLMANN. Bremen: Max Nössler, 1901. Pp. viii., 195.

Both in this country and in Germany the study of the French philosophers who wrote during the latter part of the eighteenth century and the opening decades of the nineteenth seems for some time past to have been entirely out of fashion, and this interesting little essay is very welcome. Maine de Biran, if not the most important or influential of the writers indicated, was yet in some ways the most remarkable of them. Although irresolute in temperament and devoid of all the literary graces which usually distinguish his countrymen, he has asserted for himself a permanent position in the history of philosophy by the originality of his revolt against Condillac's doctrines and by his extraordinary foreshadowing of modern voluntarism. His great achievement was his theory of *l'effort voulu*, substituting will or mental activity in place of sensation as the fundamental concept in psychology, and therefore also, according to his view, in metaphysics. Dr. Kühmann in a very interesting chapter compares De Biran first with Schopenhauer and then with Wundt. The resemblance is more close in the latter case, and it is especially striking since Wundt does not appear to be philosophically descended from the French writer. At the most, they are collaterally related, inasmuch as both can trace their pedigree back to Leibnitz.

Dr. Kühmann's essay is clearly and easily written. The first and second chapters of it are introductory; the third gives an outline of Condillac's philosophy; the fourth and fifth and sixth deal with De Biran's own theories, and with his relationship to previous writers. These are followed by a biographical chapter, part of which would have been better placed at the beginning of the book. The author next deals with French criticisms on De Biran, then with related or similar views in

England (a rather thin chapter), and lastly with Schopenhauer and Wundt. The concluding chapters are critical and give an outline of the author's own view. The treatment of these various subjects is in no case exhaustive, but it is concise and to the point, and does not, except in one place, degenerate into mere sketchiness. That exception is the later part of the biographical chapter, which deals with his relations to contemporary thinkers like Cousin, Royer-Collard and Ampère. Misprints are unfortunately very frequent.

T. LOVEDAY.

Nouvelles Recherches sur l'Esthétique et la Morale. Par J. P. DURAND (DE GROS). Paris: Félix Alcan, 1900. Pp. 275.

Most of the essays composing this volume were written, the author explains, some thirty years ago, and were intended to meet the urgent need for a scientific and constructive treatment of questions of morals. This need he believes to be no less urgent now, for in France the guidance of opinion on these questions is still divided between an unprogressive Catholicism on the one hand, and a merely negative and destructive positivism on the other, and the only result of the conflict is a weakening of moral convictions, since it is impossible to find satisfaction on either side. The leading ideas of the book can be stated very briefly. Regarding the treatment of æsthetic and moral sentiments as belonging to a wider theory of feeling in general, the author starts with an analysis of sensation. The actual sensation is the effect of three causes, *viz.*, the faculty or psychological cause, the organ or physiological cause, and the agent or physical cause. Of these three an objective æsthetic or theory of feeling is concerned primarily with the last, *i.e.*, with the normal objective causes of the differences of different feelings. Again, every sensation is accompanied (1) by a state of pleasure or pain, (2) by a more or less useful motor reaction, impelled by the pleasure or pain, and guided by the objective knowledge which the sensation affords. To the normal objective cause of pleasure in general the author gives the name of "the Beautiful," using this term in a very wide sense. And he then seeks to connect the directly pleasurable effect of the Beautiful with its utility, so that the Beautiful is that which, being directly pleasurable, is also either useful in itself or impels us to useful actions. A few essays are devoted to the illustration of this thesis. Then a similar application of the original analysis is made in the case of the moral sentiments, and it is affirmed that the feeling of duty has for its true objective cause the code of action of a normal society, *i.e.*, one which exists to secure the good of all its members. The miscellaneous essays which make up the last half of the volume deal, it is true, with points of morals, but have little or no bearing upon the thesis just mentioned. This outline may suffice to indicate the character and value of the book.

Le Mystère de Platon. Aglaophamos. By LOUIS PRAT. Paris: Félix Alcan, 1901. Pp. xxii., 215.

M. Prat has apparently set himself to discuss the philosophic problems of the day in the form of Platonic dialogues supposed to have occurred in Plato's old age. In the present instalment, which is prefaced by M. Renouvier, Aglaophamos is the representative of Catholicism, the intrinsic contradictions of which are skilfully made to reveal themselves, Eudoxos (of Knidos) of scientific 'positivism,' Plato himself of 'Neo-

criticism'; while Kallikles (of the *Gorgias*) has been mellowed by age into an exponent of Renan's philosophic attitude. Whether M. Prat will succeed in overcoming the immense difficulties of the literary form he has adopted and in reaching results commensurate with the pains he has evidently taken, is a question on which it will perhaps be better to reserve judgment until he has completed the whole series of dialogues which he seems to contemplate. It may, however, not be impertinent to call his attention to the fact that the best kind of Platonic dialogue involves also a delineation of the character of the participants and does not disdain the aid of humour and fancy to enliven its high seriousness of purpose.

F. C. S. SCHILLER.

Zur Lehre von der Willensfreiheit in der Nichomachischen Ethik. Von Dr. ALFRED KASTIL. Prag, 1901. Pp. 44.

After a careful discussion and translation of the relevant passages in the *Ethics* the author comes to the well-known conclusion that Aristotle stops short of the point at which the problem of indeterminism arises. So does he. Indeed he abstains even from indicating the obscurities in Aristotelian doctrine which render it so interesting an example of a philosophy trembling on the verge of the 'free-will' problem.

Problemi Generali di Etica. Da Giovanni Vidari. Milano, 1901. Pp. xvi., 271.

The ethical problems dealt with in this thoughtful essay are problems of method. According to the author all genuine systems of morality assume that life has a positive value, or, as he prefers to put it, that it is a duty to live; and they assume also the existence of self-conscious individuals. Now these two assumptions demand for their justification a theory of the universe, either materialistic, pantheistic, or theistic; and in point of fact the older ethical systems were built on one or other of these foundations, and admit of a corresponding classification. But, just as in other branches of knowledge, we may provisionally ignore the necessity of a metaphysical basis and construct our ethical system inductively from the facts of experience. In this way we shall have a science as distinguished from a metaphysic of ethics. An examination of the facts of consciousness discloses the existence of an ideal of conduct, present to the thoughts and feelings of all men in all ages whence particular rules of conduct are derived. And here again the relative phenomena admit of being studied according to different methods. The older moralists, represented in a comparatively recent period by Mill and Bain, looked no further than the growth and structure of the individual mind for the genesis of morals. In contemporary philosophy this procedure has been completely superseded by the sociological method—the study of the ideal as it presents itself to the collective consciousness of the community, and as it is gradually transformed by the processes of historical evolution. Once more the sociological method subdivides itself into three distinct types, the biological represented by Herbert Spencer and Leslie Stephen, the economical by Marx, and the psychico-historical by Wundt and Baldwin. Finally the author gives his almost unqualified adhesion to the principles of Prof. Baldwin as, so far, the most illuminating of modern guides.

After studying the process by which the ethical ideal comes to be formed and recognised as such, we have to consider how ethics are organised into a system of positive teaching. Should the ideal take

shape as a theory of virtues, of duties, or of goods? Our author holds that all three points of view find their appropriate place in a complete moral philosophy. Virtue stands for the individual, duty for the social side of the ideal, while the final good is to be found in the synthesis and interpenetration of both. And the question whether morality should be looked on rather as a personal or as a social interest receives a similar solution. Morality is essentially social in so far as it springs from the relations between members of a community; while at the same time it is only realised in the self-consciousness of the individual soul. And the individual only realises himself as a moral agent in certain morally organised communities. In two of these, the Family and the State, the moral constitution is already complete; in two others, Society and Humanity, it is still in process of formation.

Since writing his prize-essay on Rosmini (reviewed in *MIND* for January, 1900), Prof. Vidari has made considerable progress. The mischievous paradox that the study of moral science should be entirely divorced from the practical teaching of morality has been completely though silently withdrawn and replaced by an opposite point of view. And if the theological implications of his former volume have not been abandoned at least they have receded into a remote and shadowy background. But his exposition is still hampered by the detestable Italian custom of dragging in references to the literature of the subject at every available opportunity—occasionally with the result of exhibiting the author's ignorance rather than his knowledge. For example the "inadmissibility of universal determinism as a philosophical foundation for morality" is by no means so generally conceded as he asserts (p. 43); and when in close connexion with this statement he proceeds to quote "Huxley and Kidd"—by the way our author should, to use a phrase of Nietzsche's, be more careful about his conjunctions—as having demonstrated that the "mechanical and biological conception of life is incapable of justifying duty," he seems to suggest, what is not true, that Huxley rejected the doctrine of determinism. Neither the Stoics nor Spinoza taught Universalistic Hedonism (p. 105). The author may be right when he tells us that individual conduct and action, taken in their totality, give no evidence of moral progress (p. 155); but he has no right to quote Buckle as an authority for this cheerless view of human nature. What Buckle denied was that there is any advance in the knowledge of moral truth—in other words he would have refused to admit that 'evolution of the ideal' to which Prof. Vidari would limit moral progress. Incidentally I may observe that to trace the transformations of organised hypocrisy through all history—for that after all is what this theory of ethical evolution amounts to—seems a singularly unattractive way of spending one's time. But to continue, Auguste Comte is strangely enough accused of holding that ideas, as distinguished from sentiments, move the world (p. 160); whereas he held, just as the author does, that the function of ideas is to guide, of sentiments to impel. Finally when our author attempts a little ethical history on his own account he blunders most conspicuously. It has been already mentioned that he distributes the subject-matter of ethics under the three heads of virtue, duty and good. Well, *a propos* of this classification, he informs us that the moralists of antiquity occupied themselves wholly with elaborating the conception of virtue; that the conception of duty first arose in the middle ages, and indeed could only arise at a time when morality was regarded as something supernaturally revealed and imposed; while the complete investigation of the good, suggested as it is by the conflict and comparison of different ideals, has been reserved for modern times. Is it possible that

Prof. Vidari has never been told the stories—whether true or false matters nothing—of Brutus and Regulus, that he has never read the *De Officiis*, or that he has never observed how the *Secunda Secundæ* of Aquinas and the vision of Dante, both countrymen of his own, are constructed on a scheme not of duties but of virtues and vices? The truth is that virtue, duty and good are all Greek conceptions and have only been further elaborated by building on foundations laid in Greece.

A. W. B.

Il Materialismo Psicofisico e La dottrina del Parallelismo in Psicologia. Da FILIPPO MASCI. Napoli, 1901. Pp. 283.

By 'psycho-physical materialism' the author of this essay means the theory which 'attributes causality (solely) to the physical process, and considers the psychic process as an "epi-phenomenon"' (p. 219), that is as a collateral incident of nervous action on which it does not react. That is one kind of parallelism. Another kind is Spinoza's theory, according to which the two processes flow on side by side, neither interfering with the other. Both views are subjected to a minute criticism, and are finally rejected as irreconcilable with experience. A similar condemnation is passed on dualism, the theory which regards mind and matter as two distinct substances acting and reacting on one another. Signor Masci himself comes forward in support of what is known among English philosophers as the 'double-aspect' theory. Every manifestation of consciousness is accompanied by some form of nervous action involving an expenditure of energy, the two being related to one another neither as cause and effect, nor as independent concomitants, nor even as conjoint manifestations of a single substance, but as correlative and inseparable sides of one and the same event, manifest to itself as consciousness, manifest to a spectator as cerebration. Moreover, the mental side of the process is not limited to consciousness. There is such a thing as unconscious ideation and volition, proved to exist by our own experience, proved to be no mere cerebration by the fact that it can only be understood as such, that is as operating according to the laws of mind which are quite distinct from the laws of matter. We must assume that this subjective side is present in every act of animal vitality; probably it accompanies plant life also; and possibly it is even present to the specific energies of inorganic matter, but this last is a problem on which experience throws no light whatever.

Signor Masci has little claim to originality; nor does his advocacy of it tend to make the double-aspect theory more intelligible. If cerebration and ideation are the same thing why have they such contrasted laws? If spirit and matter, considered as distinct entities, are mere abstractions (p. 207) how can the inorganic world be conceived as possibly inanimate? Again, we are told that 'the physiological phenomenon is that aspect of the total phenomenon which is or might be the object of an outward observer' (p. 206). But this 'outward observer' is by hypothesis himself a phenomenon, so that we have to ask how one phenomenon can be the object of another; what is the difference between phenomena, aspects, and objects; under which heading 'externality' is to be placed; and finally how the two 'aspects,' internal and external, are to be conceived as united except in a *tertium quid*, which the hypothesis excludes, or by one of the things to be united, which is absurd.

'Psychic objects,' the author tells us, considered 'as fixed substrata of events do not exist' (p. 210). And he also holds that 'human personality is the psychic form of the existence of the human organism'; while

'spirit must be considered as the last product of organic evolution' (p. 263). From such Aristotelian doctrines no other conclusion can logically be drawn than Aristotle's own conclusion that the soul perishes with the organism. Nevertheless Signor Masci winds up his book with a highly rhetorical plea for a future life based entirely on sentimental grounds. One who so far forgets the duty of a philosopher should erase from his title-page the proud words of Spinoza, *non flere, non indignari, sed intelligere*.

A. W. B.

RECEIVED also:—

- Annual Report of the Board of Regents of the Smithsonian Institution*, for 1899.
- J. M. Baldwin, *Dictionary of Philosophy and Psychology*, vol. i., New York, Macmillan, 1901, pp. xxiv., 644.
- M. W. Calkins, *An Introduction to Psychology*, New York, Macmillan, 1901, pp. xv., 509.
- Proceedings of the Society for Psychical Research*, part 41, vol. 16.
- B. Hollander, *The Mental Functions of the Brain*, London, Grant Richards, 1901, pp. xviii., 512.
- H. G. Hutchinson, *Dreams and Their Meanings*, London, Longmans, 1901, pp. 320.
- E. C. Richardson, *Classification, Theoretical and Practical*, New York, Scribner's Sons, 1901, pp. xiv., 248.
- K. Groos, *The Play of Man*, London, Heinemann, 1901, pp. ix., 412.
- J. E. M. McTaggart, *Studies in Hegelian Cosmology*, Cambridge, University Press, 1901, pp. xx., 292.
- J. B. Baillie, *The Origin and Significance of Hegel's Logic*, London, Macmillan, 1901, pp. xviii., 375.
- A. K. Rogers, *A Students' History of Philosophy*, New York, Macmillan, 1901, pp. xi., 519.
- J. W. Thomas, *Intuitive Suggestion*, London, Longmans, 1901, pp. viii., 160.
- C. A. Mercier, *Psychology Normal and Morbid*, London, Sonnenschein, 1901, pp. xvi., 518.
- C. A. Reid, *Alcoholism*, London, T. F. Unwin, 1901, pp. xvi., 293.
- J. Lindsay, *Momenta of Life*, London, E. Stock, 1901, pp. 146.
- H. Jackson, *Texts to Illustrate a Course of Elementary Lectures on the History of Greek Philosophy*, London, Macmillan, 1901, pp. xi., 111.
- H. C. Bastian, *Studies in Heterogenesis*, part I., London, Williams & Norgate, 1901, pp. iv., 61.
- Annie Besant, *Thought Power*, London, Theosophical Publishing Society, 1901, pp. 145.
- Lux Aurea: Light from the Summerland*, London, Gay & Bird, 1901, pp. 208.
- F. H. Giddings, *Inductive Sociology*, New York, Macmillan, 1901, pp. xviii., 302.
- F. H. Collins, *Epitome of the Synthetic Philosophy*, fifth edition, London, Williams & Norgate, 1901, pp. xix., 692.
- J. Halleux, *L'Évolutionnisme en Morale*, Paris, Alcan, 1901, pp. 228.
- Ossip Lourié, *La Philosophie russe contemporaine*, Paris, Alcan, 1902, pp. 278.

- L. Couturat, *La Logique de Leibniz*, Paris, Alcan, 1901, pp. xiv., 608.
R. Schellwien, *Wille und Erkenntnis*, Hamburg, A. Janssen, 1899, pp. 122.
O. Schlapp, *Kants Lehre vom Genie*, Göttingen, Vandenhoeck & Ruprecht, 1901, pp. xii., 463.
W. Wundt, *Einleitung in die Philosophie*, Leipzig, Engelmann, 1901, pp. xviii., 466.
H. Leser, *Das Wahrheitsproblem*, Leipzig, Dürr, 1901, pp. 90.
N. H. Marshall, *Die gegenwärtigen Richtungen der Religionsphilosophie in England*, Berlin, Reuther & Reichard, 1902, pp. vii., 136.
G. Oehmichen, *Grundriss der reinen Logik*, Berlin, Reuther & Reichard, 1901, pp. viii., 55.
F. de Sarlo, *Studi sulla filosofia contemporanea*, vol. i., Roma, E. Loescher, 1901, pp. viii., 241.
V. Grimaldi, *La Mente di G. Galilei*, Napoli, Detken & Rocholl, 1901, pp. 122.

VII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. x., No. 2. **G. S. Fullerton.** 'The Doctrine of Space and time. I. The Kantian Doctrine of Space.' [When Kant says that space is a necessary form of thought, and therefore that we cannot conceive the possibility of the non-existence of space, although we can easily conceive the non-existence of objects in space, he is leading us into a philosopher's fallacy: we are asked "to annihilate space, and yet keep in mind, so to speak, the place where it was". The argument that we cannot conceive of space as finite means, that we cannot conceive it as a whole in the space beyond which there is no further space, *i.e.*, is another philosophical quibble. With it falls the demonstration that the sensible world is unlimited in extent. Finally, as to infinite divisibility, Kant reasons "(1) that what is given in intuition must be composite, for, by the law of our sensibility, nothing can be given in intuition that is not composite; . . . and (2) he argues that it is subversive of mathematics to deny the infinite divisibility of what is given in intuition". Both arguments can be met.] **F. Thilly.** 'The Theory of Interaction.' ["Parallelists deny interaction, because they believe it contradicts the law of the conservation of energy, the causal law, and the law that no physical occurrence can have anything but a physical occurrence as its cause. But interaction does not contradict the first two laws, properly understood, and the last law is not true."] **A. K. Rogers.** 'The Neo-Hegelian "Self" and Subjective Idealism.' [The thought which is real for Hegelianism is the thought of an Absolute Self. Yet, by their language, the Hegelians are constantly slipping back into subjective idealism. They are seeking to prove two conclusions, which are not identical: that reality is rational, and that reality is a single all-inclusive consciousness. The valid element in their argument is the "reduction of objects to factors within a rational conscious whole". They show that "in opposition to sensationalism, human experience is no compound of unrelated feelings, but is objective from the start, *i.e.*, is constituted by thought-relations". But we must go on and ask further whether this apparent knowledge of ours tells us truth of a reality abiding beyond its transitory existence as an experience. The Hegelian resolutely refuses to catch sight of the problem: and the presumption is that the "consciousness or knowledge, of which he is continually speaking, is just the consciousness of the individual man". "In his desire to bring man and the world into harmony, Hegel has strained an argument, legitimate in its place, to an application which is not legitimate, unless he means to confine himself to the private experience of the individual; . . . his unqualified rejection of the independent existence of the world, and of the problem of epistemology, is mistaken."] 'Proceedings of the First Annual Meeting of the Western Philosophical Association, 1901.' **Reviews of Books. Summaries of Articles. Notices of New Books. Notes.** Vol. x., No. 3. **G. S. Fullerton.** 'The Doctrine of Space and Time. II. Difficulties connected with Kant's Doctrine of Space.' [Zeno's puzzle

cannot be resolved, if we grant its foundation: cf. Clifford's reasoning in 'Seeing and Thinking'. We may prove, in the same way, that a point on the periphery of a revolving disc is "all around the disc at once," when the disc revolves with infinite rapidity. We can prove, too, that the mind is in the pineal gland and, at the same time, in all parts of the body. The nonsense rests upon the nonsensical assumption that "an endless series can be completed by a progress which results in the attainment of a final term". We may avoid the fallacy by turning our minds from the whole subject: or we may quibble, saying that space is infinitely divisible, but not infinitely divided. Neither 'way out' is philosophical.] **G. N. Dolson.** 'The influence of Schopenhauer upon Friedrich Nietzsche.' [There is no great similarity in the theories of the two philosophers, and their interests were even more widely separated. What "attracted Nietzsche to Schopenhauer was a radical independence of tradition and public opinion". Schopenhauer "gloried in disagreeing with established authority . . . ; his manner of expressing his criticisms was often personal in its tone". Nietzsche controverted many of his views with great bitterness, but his strictures were never contemptuous. "The chief bond between the two men was that of a similar intellectual personality."] **E. Albee.** 'An Examination of Professor Sidgwick's Proof of Utilitarianism.' [Sidgwick's proof "equally involves the validity of his treatment of the three fundamental 'intuitions' and his hasty determination of the nature of the Good, which he holds that all of these intuitions imply". Justice is merely the postulate of objectivity or impartiality, epistemologically akin to the fundamental methodological postulates of the various sciences. As regards rational prudence and benevolence, (1) "the assumption of an original separateness between the interest of each individual and that of all others" cannot be conceded, and (2) "only the principle of rational prudence is really treated as a separate intuition, that of benevolence having been arrived at indirectly". Nor do these principles all imply a Good, still undetermined, of which they are to be regarded as 'distributive' principles.] **A. H. Lloyd.** 'A Study in the Logic of the Early Greek Philosophy. Pluralism: Empedocles and Democritus.' [In a finite pluralism—that of Empedocles—" (1) force as apart from mere substantial existence in the form of passive elements is a necessary supplementary or compensating conception; (2) this external arbitrary force is double, there being in reality two forces which counteract each other and give to the process of the universe a rhythmical character; and (3) the two forces have to figure as other elements, but other both quantitatively and qualitatively". There follows the infinite pluralism of Democritus. But infinity is a quantitative abstraction; as number or extension it is only formal. Hence the "elements cannot be real elements, nor the vacua or gaps real vacua, nor the external forces real external forces, nor even the rhythm a real alternation". In every case, the unreality or formal character shows itself in a paradox. The paradoxes are, however, "necessarily prophetic"; the mechanicalism which Democritus substituted for Empedocles' dynamism "was only a subtle disguise for something else," i.e., for "relationism or organicism, the philosophy of evolution".] **D. Irons.** 'Natural Selection in Ethics'. ["The moral law does not enjoin survival, but performance of function regardless of all else. It is not evolved in the struggle for existence, for it is the supreme principle of the universe as manifested in the world of persons. It is an expression of the supreme principle which makes the universe a universe, and cannot be evolved by any process which goes on within the universe. . . . There is ethical as well as organic evolution. . . . The whole history of civilisation shows,

on the plane of objective fact, the working of this principle of moral selection. . . . A vanquished nation may conquer its conquerors if its civilisation is higher. . . . From the essential nature of evolution, moral evolution must be different from any form of organic evolution, since it holds, not in the region of mere life, but in the world of personality." [Reviews of Books. Summaries of Articles. Notices of New Books. Notes.

PSYCHOLOGICAL REVIEW. Vol. viii. No. 2. **G. T. W. Patrick.** 'The Psychology of Profanity.' ["Profanity is only to be understood by the genetic method, the point of departure being the growl of anger in the lower animal, which is . . . a serviceable form of reaction in cases of combat. It belongs, therefore, to a primitive form of vocalisation, . . . being one of several forms of speech preceding articulate language. . . . By a process of selection it chooses at all times those forms of phonation or those articulate words which are best adapted to terrify or shock the opponent. . . . The occasion of profanity at the present time may be any situation in which our well-being is threatened, as in helpless distress or disappointment. There is always, however, some object . . . against which the oath is directed."] **W. Fite.** 'Art, Industry and Science: a Suggestion towards a Psychological Definition of Art.' [The paper conceives of art and industry as successive phases in the development of impulse, and of art and science as similar phases in the development of cognition. (1) "The æsthetic or practical character of a want, the beautiful or useful character of an object, the artistic or industrial character of a form of activity, depends upon the extent to which it constitutes a fundamental feature in one's organised system of habits. . . . We have . . . a graded continuum, with the distinctively practical at one end, . . . and the purely æsthetic at the other." Again, (2) "whether an object be apprehended as a work of art or as a fact of science depends wholly upon the extent to which it is apprehended in analytic detail," *i.e.*, is also a matter merely of degree. This conception of beauty covers and brings into mutual relation the various proposed definitions of the beautiful.] **R. Dodge** and **T. S. Cline.** 'The Angle Velocity of Eye Movements.' [Critique of Volkman, Lamansky, Delabarre-Huey. Description of new (photographic) apparatus. Movements to the left (arcs of 12° to 14°) occupied a mean time of 40.9σ ; movements to the right (arcs of 2° to 7°), a mean time of 22.9σ .] Proceedings of the Ninth Annual Meeting of the American Psychological Association, 1900. Psychological Literature. New Books. Notes. Vol. viii, No. 3. **J. R. Angell** and **W. Fite.** 'The Monaural Localisation of Sound: from the Psychological Laboratory of the University of Chicago.' [Observations upon the capacity of localisation in a person entirely deaf in one ear. (1) The differences between binaural and monaural localising capacity are "interpretable as chiefly differences in the magnitude of the difference limen for locality, rather than as absolute differences in the kind of localising process involved". Only in the region directly opposite the deaf ear are the localisations markedly uncertain. (2) "Qualitative differences in the sounds coming from different directions" are the basis of localisation. (3) The presence of eye-reflexes was often noticed. (4) There is no evidence for the concernment of cutaneous sensations in the localising process.] **E. L. Thorndike** and **R. S. Woodworth.** 'The Influence of Improvement in One Mental Function upon the Efficiency of Other Functions.'—I. ["Our chief method was to test the efficiency of some function or functions, then to give training in some other function or functions until a certain amount of improvement was reached, and then to test the first function or set of functions," care being taken that no extrinsic factors were allowed to affect the tests. A sample

experiment is given, the results of which are summarised as follows. "The improvement in the estimation of rectangles of a certain shape is not equalled in the case of similar estimations of areas of different shapes. . . . Even after mental standards of certain limited areas have been acquired, the function of estimating with these standards constantly kept alive by noticing the real area after each judgment is a function largely independent of the function of estimating them with the standards fully acquired, . . . but not constantly renewed by so noticing the real areas." Still further "the ability to judge one magnitude is sometimes demonstrably better than the ability to judge the next magnitude; one function is better developed than its neighbour. The functions of judging nearly equal magnitudes are, sometimes at least, largely separate and independent." **W. M. Urban.** 'The Problem of a "Logic of the Emotions" and "Affective Memory."'-I. [An attempt to trace the genesis of the 'emotional abstract,' and to find the constant element in generic affective states. "Those affective states which bear the marks of abstraction—concept feelings, sentiments and moods—are characterised in general by lower hedonic intensity and by qualitative indefiniteness, and yet their unitary quality stands out strongly. . . . The process of abstraction consists of the bringing into prominence by selective attention of a fundamental quality (the 'dynamic constant') other than the varying elements. . . . The first stage of this generalising process is then the generic emotion itself . . . made up of a number of motor tendencies manifesting themselves in consciousness in various organic sensations, qualitatively different, but each group having the common dynamic constant. . . . Still more generic phases of emotionalism . . . may be looked upon as complexes of a higher order, as assimilations of varying emotional tendencies on the basis of their dynamic constancy." The 'dynamic constant' itself is "a relatively permanent system of intensities and of temporal and rhythmic relationships among the organic sensations of an emotional reaction," i.e., is a *fundierter inhalt*. It affords a basis in psychology for a doctrine of values.] **J. M. Gillette.** 'Multiple After-images.' **E. F. Buchner et al.** 'Disclaimer No. 2.' Psychological Literature. New Books. Notes.

AMERICAN JOURNAL OF PSYCHOLOGY. Vol. xii, No. 2. **H. H. Foster.** 'The Necessity for a New Standpoint in Sleep Theories.' [Historical review of the circulation theories, the chemical theories (combustion and auto-intoxication), and the histological theories of sleep. Approach to the problem from the evolutionary standpoint. (1) "Sleep results from the limited capacity of the organism to receive and respond to stimuli, either through *fatigue* or through *lack of development*. Both factors are internal. The relation of each to function can be traced along chemical, histological and vasomotor lines." (2) A second question concerns the operation of selection upon sleep, and the rise of secondary determining factors. To note are the primary rhythm of the nervous system; blood supply; conscious adaptation to the conditions most favourable to sleep; attention. (3) Sleep falls under the general heading of nervous rhythms as the period of rest, not (as Manacine says) of consciousness, but of the support or vehicle of consciousness. The cessation of consciousness is an integral feature of the sleeping state. Bibliography.] **M. F. McClure.** 'A "Colour Illusion".' [Repetition and extension of Ladd's experiments with coloured strips upon variously coloured backgrounds. Rejection of explanation in terms of fatigue, and substitution for this of contrast and local adaptation (Hering). There is really no 'illusion' involved.] **L. Hempstead.** 'The Perception of Visual Form.' [In looking at forms liminally different from their back-

ground, we continue lines and complete figures under the principles of symmetry and similarity; we also round angles and ignore certain lines altogether. Our subjective idea of the number, form and position of the component lines is indefinite, and is again guided by the principles of symmetry and similarity. Each observer has certain habits of illusion, or typical modes of associative completion.] **W. C. Bagley.** 'On the Correlation of Mental and Motor Ability in School Children.' [A general inverse relation was found between motor and mental ability: clever children, with quick reaction times, are not the best developed physically, not the strongest, and not endowed with the greatest power of motor control. There is little relation between class standing and reaction time, except that excellence in either goes with deficiency of motor ability. Motor ability increases with age more markedly than mental ability. There is a tendency to inverse relation of mental ability and head girth.] **W. S. Small.** 'Experimental Study of the Mental Processes of the Rat.'—II. [Tests of white rats in mazes on the Hampton Court pattern; cf. the home-burrow of the kangaroo rat. The white rat is less vigorous and hardy than the wild rat; he has sloughed off some of his native furtiveness and timidity; but his senses (except sight) are as keen, his characteristic rat-traits as persistent, and his mental adaptation as considerable. "Animal intelligence works almost exclusively by the trial and error method"; cf. young children. The question of animal reasoning is still treated by the author as a question of the 'perception of relations'. First among the sensations, in order of importance, stand the tactual-motor; then come hearing and smell (the "effect of smell sensations is general and emotional"); sight is least of all relied upon (control experiments were made with a blind rat).] **A. J. Kinnaman.** 'A Comparison of Judgments for Weights Lifted with the Hand and Foot.' ["The difference in sensibility of the hand and foot beyond 1,200 gr. is very small. The larger difference with the lighter standards may be due to finer *dermal* discrimination in the hand than in the foot." As regards method, "standard sensations play an important rôle in a series of like judgments"; and "the second test of the series is judged better than any others". Attempt to estimate the relative value of focal and marginal factors in judgment: "the influx of marginal sensations, and transposition of focal sensations, . . . seems to have been most marked at from 800 to 1,200 gr." Interferences of sensation may arise either from distraction or from fusion: the latter is evidenced by the insinuation of arm-weight into the weight of the standard as the latter increases. Bibliography.] Psychological Literature. Books received.

INTERNATIONAL JOURNAL OF ETHICS. Vol. xi., No. 4. **H. Rutgers Marshall.** 'Our relations with the Lower Races.' [The commonwealth of nations is similar to a civic commonwealth, in that the lower units must have as much free development as possible. The lowest races must not be crushed out of existence; for they may develop into something higher than the races which at present are highest. This refutes imperialism.] **R. A. Bray.** 'Unity of Spirit as the Basis of a National Church.' [Religious teachers ought to combine to combat Commercialism. Their combination must not be based on unity of purpose, nor of belief, but of spirit. This spirit must be an enthusiasm of humanity.] **C. M. Bakewell.** 'A Democratic Philosopher and His Work.' [An appreciation of the late Thomas Davidson.] **J. R. MacDonald.** 'The Propaganda of Civilisation.' [Civilisation is propagated among barbarians by improving the rudiments of it which they already possess; not by imposing on them a Western civilisation which does not suit them and has its own failings.

We can do most for civilisation by raising our own lower classes.] **W. P. Ker.** 'Imagination and Judgment.' [They are usually contrasted; but, as a fact, imagination supplies what is best in morality, politics, science and history. It does not annul common experience, but perfects it.] **E. G. Dexter.** 'Ethics and the Weather.' [An estimate of the effect of meteorological conditions on moral behaviour based on American criminal statistics. The conditions act indirectly by raising or lowering vital energies.] Discussions. 'The Moral Problems of War,' in reply to Mr. J. M. Robertson, by **D. G. Ritchie.** 'A Reply to the Foregoing,' by **J. M. Robertson.** Book Reviews.

REVUE DE MÉTAPHYSIQUE ET DE MORALE. 9^e année, No. 2. Mars, 1901. **G. Tarde.** 'L'action des faits futurs.' [Written more than twenty-three years ago, and containing conclusions which the author would not now accept. Points out very clearly that scientific laws would all apply equally well to cases different from any which actually occur; and that therefore, to account for what does occur, we must also always have recourse to other actual occurrences—*facts*. But, since future occurrences are connected with the present by exactly the same necessary laws as are past occurrences, why do we always regard the past alone as *explaining* the present? and are we right? M. Tarde argues that it is a mere prejudice, proceeding from the fact that we never realise so clearly that nothing can hinder the future from being what it is to be as that the past is unalterable; we do not realise that *future contingents* are as impossible as *past*, because the past is what we know best, and from which we have to make our inferences. He simply assumes that because the future is equally necessarily related to the present, it therefore has the *same* relation to it as the past, namely, that which we call 'action on': consequently he immediately contradicts himself when he argues that it is contradictory to suppose the relation of a thing to *what it will do*, i.e., to what follows it, reversed. He goes on to argue that it is a mistake to regard what is called *normal* development as if it alone exhibited finality (to which he now gives also an eulogistic sense); that it is precisely in the *highest* forms of life, where the influence of the past is most marked (habit, heredity), that the influence of the future (correlation of organs to a common end) is so too, etc., etc.; and, finally, that the root of the prejudice against explanations by the future lies in the error of 'sacrificing the importance . . . of the complex, the different, the individual, . . . to the importance of the simple, the identical.' **E. Le Roy.** 'Un positivisme nouveau.' [There has lately arisen a new 'Criticism,' which maintains the 'primacy of activity' as against the 'positivism' of the middle of the nineteenth century, which maintained the 'primacy of reason' = 'Intellectualism': the author's object is (1) to justify this criticism; (2) to show that it is not sceptical but leads to a new positivism. (1) No one scientific *theory* is *true* than another; it is only that some suit better than others those habits of thought which constitute 'common sense'. Scientific *laws* are mere *definitions*: the mind can 'decree scientific results' capriciously; for it may choose any of the infinite conclusions which are not self-contradictory; only some of them would not accord with common sense. Scientific *facts* are '*made by the scientist who recognises them*'; and one is more valuable than another, only if it helps us to reason or act more easily. (2) The 'intellectualist' objection that this theory is sceptical, fails to recognise that it does not make scientific truth consist in a 'mere verbal decree,' but makes its value, as *knowledge*, consist in the 'power of inner life it contains'. There follow nine 'theses' of the new criticism, which show it to be a positivism; whence we learn: That necessary

laws are arbitrary *only* from a purely logical point of view, but yet are not quite necessary from any point of view: and that 'We know nowadays' that 'the greater apparent value of Euclidian Geometry . . . is at bottom only our practical preference for solids, the mark and effect of our corporeal structure'. Perhaps the view that our 'corporeal structure makes us prefer solids' is itself an effect of our corporeal structure, and therefore false? Or does it contain too much power of inner life?] **J. Wilbois.** 'L'esprit positif.' [Surpasses M. Le Roy's article in the confidence and fervour with which it preaches the vague absurdities of 'the new philosophy'. The Introduction informs us that 'In our time it has been minutely proved' that 'the mind manufactures scientific facts, by long processes of artifice'; that 'Nobody questions any longer,' but that 'the spirit of positivism is a spirit of relativism'; but that the fundamental fact that it is 'a spirit of life' is less generally recognised: what 'life' means the author can't define, but 'the intuition' of its meaning may be conveyed by what follows, to those who have undergone, or judge it worth while to undergo, the necessary 'disciplines'. What follows is a first chapter on 'The positive spirit in the formation and use of the principles of physics'. This is divided into four parts: (1) Those who 'don't possess the intuition of principles' are described. (2) Principles may be analysed into two elements, which are 'indissolubly united'; (a) the 'relative element,' 'a form under which' a principle is a convenient 'tool'; (b) the 'independent element,' 'an exterior truth'. These are illustrated by examples, and an excellent literary description of the psychology of discovery follows, which we are told might be transformed into a *logic*, which, unlike Mill's, would consist in 'moral rules'. Two laws are given: Scientific progress is made by proceeding in the direction (a) of the artificial, (b) of the contradictory. (3) Principles are (a) alive, (b) each dependent, in its life, on all the rest, (c) immortal. They combine the contrary characters that they are (a) 'our own decrees,' (b) 'variable with experience,' (c) 'directed by action'. (4) 'The intuition of principles' cannot be attained either by the 'intellectual' or by the 'aesthetic' method. The true method must, like them, be 'regressive,' in order to remove the influence of *corporeal, industrial and rational* action; but, unlike them, it must be itself an activity which transcends these three forms of action: it is a self-sacrificing inner life, which is objective, in the truest sense ('what can become common to all'), because it alone is 'truly contagious'.] *Études Critiques. Questions Pratiques.* New Books, etc.

REVUE NÉO-SCOLASTIQUE. No. 27. **J. Halleux.** 'L'hypothèse évolutionniste en Morale.' [The evolution hypothesis has not confined itself to the purely scientific domain. It has given birth to a new conception of the Moral Order. M. Halleux in the present article commences an examination of the evolution theory as applied to Morals. Taking Mr. Herbert Spencer as his guide, he sets forth the views of the Evolution school on the nature and definition of conduct, the evolution of conduct, the basis of the distinction between good and evil, or, in other words, the criterium of morality, together with the criticisms of Mr. Spencer on the theological, legist, intuitionist and utilitarian theories of Morals, all of which theories, in Mr. Spencer's opinion, seek for the basis of morality elsewhere than in the nature of things. M. Halleux will discuss these views and criticisms in later articles. But, meanwhile, he states in passing that Mr. Spencer has misapprehended the principles of theological morality.] **A. Thiéry** ('Le Tonal de la parole') explains the various experiments that have been made with the view to ascertaining

the pitch and establishing the melody of the human voice, considered as an organ not of song but of speech, and exhibits various species of notation that have been invented for the recording of this pitch and melody. His treatment of the subject is highly technical and likely to be appreciated only by skilled musicians. But musicians will probably follow his researches with interest. **D. Mercier** ('Le bilan philosophique du xix^e siècle: suite et fin') maintains that philosophy is the most complete explanation possible of the universal order. The sciences, each of them working in some particular field of knowledge, lay the foundation of this work of explanation. Philosophy, following after the sciences, profits by their acquisitions, and undertakes the task of establishing amongst the various branches of human knowledge a logical subordination which shall be the certain and accurate expression of the sum of the contents of consciousness. Philosophy is thus the natural development of science. Hence by reason of the progress of science in recent years, no time has been so well fitted as the present for the elaboration of philosophy.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE. Bd. xxvi., Heft 5 und 6. **G. Heymans.** 'Untersuchungen über psychische Hemmung.'—II. [Continuation of the study published in number xxi., page 321. Experiments (pressure and sight) with affection of different areas of the sensory surface by 'active' and 'passive' stimuli of the same quality. The same general result follows as from the mixed action of stimuli of different quality upon the same sensory area: weaker sensations are inhibited by stronger, in a degree proportionate to the intensity of the stronger. Theoretical conclusions: (1) *the relation between stimulus and sensation.* The facts of inhibition are of a psychological, not of a physiological character. The question whether sensations increase proportionally to the stimuli or to the logarithms of the stimuli thus seem to call for answer in terms of the former alternative. (2) *The inhibition of difference-sensations by sensations (Weber's Law).* Weber's Law must be distinguished from the logarithmic law, which is Fechner's interpretation of it. Many objections have been raised against the latter (objections of Hering, of Merkel and Ament, facts of inhibition; validity of Weber's law outside the sphere of sensation intensities; Fechner's assumption of the difference limen, and recourse to auxiliary hypotheses for the explanation of upper and lower deviations). "I regard the difference limen as a phenomenon of inhibition, and Weber's Law as a special (or limiting) case of the first law of inhibition, *i.e.*, the law of proportionality between inhibiting and inhibited stimulus magnitudes." Discussion of the difference limen, the general contents of Weber's law, the limits of its validity, and the upper and lower deviations from it. (3) *The weakening of difference-sensations by sensations (Merkel's and Ament's experiments).* Elaborate analysis of the experimental results of Merkel, Ament and Angell (method of mean gradations); their explanation in terms of the law of inhibition.] **F. Kiesow** und **R. Hahn.** 'Beobachtungen über die Empfindlichkeit der hinteren Theile des Mundraumes für Tast-, Schmerz-, Temperatur- und Geschmacksreize.' [Exploration of the surfaces of the uvula, tonsils and palatal arches with stimuli for pressure, pain, temperature, space perception, tickling and taste. Only a few results can be mentioned here. (1) The buccal cavity contains, besides areas which are sensitive to pressure but not to pain, structures which possess sensitivity to pain but none to pressure (*cf.* Von Frey's results on conjunctiva and cornea). (2) Von Frey's statement that pain sensation is to be measured in units of pressure (*gr./mm.²*) and not of tension (*gr./mm.*) is confirmed. (3) The tonsils are sensitive to cold, warmth

and pain; the uvula shows a great reduction of pain and warmth sensitivity. (4) The sensation of heat appears in areas which are lacking in cold spots; it may also arise by radiation, from thermally stimulated pain spots (against Alrutz). (5) The uvula is not sensitive to taste. The same thing holds, at least in general, of the tonsils and the palatal arches.] *Literaturbericht. Erwiderung.* [Reply to criticism, by H. Raech.]

PHILOSOPHISCHE STUDIEN. Bd. xvii., Heft 2. **F. Krueger.** 'Zur Theorie der Combinationstöne.' [(1) Two simultaneously sounding tones give rise for perception, as a general rule, to a summation tone and four or five difference tones. These combination tones and their consequences (beats, intermediate tones, etc.) are all alike independent of the existence of overtones in the primary clang. (2) All beats are referable to the existence of at least two neighbouring tones, *i.e.*, tones not more than a major third apart; Koenig's multiple beats do not exist. (3) Koenig's beat tones are not the only combination tones. Certain difference tones lie between the primaries. (4) There are only two kinds of combination tones: difference tones and summation tones. The distinction between beat tones and difference tones is not borne out by the facts. It is to be explained historically as due to a neglect of the dissonances, and a consequent erroneous generalisation of certain differences of intensity among difference tones. (5) Hermann's middle tones, and Riemann's undertones and subjective overtones, do not exist. (6) All attempts so far made to replace by other hypotheses the Ohm theory of analysis, and the Helmholtz-Hensen resonance theory based upon it, meet with great intrinsic difficulties and (or) contradict acoustical experience. (7) The objections urged against the Helmholtz theory of audition, including that of the interruption tones, are not binding. (8) Helmholtz' explanation of the subjunctive combination tones is unsatisfactory. (9) The physiological theory of these tones need not pass beyond the bounds of the resonance hypothesis. The attempt should be made, first of all, to apply Helmholtz' theory of the objective combination tones to the processes occurring in the internal ear during the perception of subjective combination tones.]

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE. Bd. vii., Heft 3. **F. Staudinger.** 'Empirische und rationale Methode in der Philosophie.' [A criticism of the System der Wertheorie of Ehrenfels. Ehrenfels confuses the genetic and analytic points. Hence his untenable doctrine that the value of anything consists in its being desired. The value of anything really consists in its being a means to an end which is part of a unified system of ends. The same fallacy affects Ehrenfels' view of ethical appreciation as directed merely to feelings and feeling dispositions. A good article.] **B. Erdmann.** 'Die psychologischen Grundlagen der Beziehungen zwischen Sprechen und Denken.' [Diagrammatic representation of the series of apperceptive fusions which take place in understanding speech, in repetition of what others say, in speaking oneself, in the internal speech of silent thought, in reading and in writing. Three stages of the development of language are carefully distinguished, and the difference between auditive, motor and visual types is throughout kept in view. A very elaborate, conscientious and valuable piece of work.] **Paul Natorp.** 'Zu den logischen Grundlagen der Neueren Mathematik.' [A criticism of Russell's *Foundations of Geometry*. Russell's work is rendered incoherent by its concession to the empirical or "definitional" point of view. The Euclidean constitution of space follows from its homogeneity and continuity when these principles are applied to "direction" as well as to quantity.] **F. Jodl.** 'Jahresbericht üb. Erscheinungen d. Ethik a. d. Jahren 1897 und 1898.' **R. Stammeler.**

'Bericht über Deutsche Schriften zur Rechtsphilosophie 1894-98.' Bd. vii., Heft 4. **B. Erdmann.** 'Die psychologischen Grundlagen der Beziehungen zwischen Sprechen und Denken' (conclusion). [Gives symbolic representation of the physiological correlates of the processes analysed in previous article. Should be especially useful to student of aphasia.] **R. Stammler.** 'Bericht über deutsche Schriften zur Rechtsphilosophie, 1894-98.' Bibliographie der gesamten philosophischen Literatur (1900).

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE. Bd. xxv., Heft 3. **J. W. A. Hickson.** 'Der Kausalbegriff in der Neueren Philosophie und in den Naturwissenschaften von Hume bis Robert Mayer,' Art. iv. [Mayer's own logical justification of the conservation of energy is satisfactory, and it is the only one that is satisfactory. This law alone gives to the causal principle a form which is scientifically valuable and defensible.] **J. Petzoldt.** 'Solipsismus auf praktischem Gebiet.' [Criticism of Döring's *Güterlehre*. According to Döring action can be reasonable and therefore right only if it is based on an estimate of its value to the agent himself. Thus for Döring the fundamental principle of ethics is egoistic eudæmonism. Petzoldt criticises on well-known lines. He insists on the logical parallelism of Döring's doctrine with theoretical solipsism.] Heft 5. **Hans Kleinpeter.** 'J. B. Stallo als Erkenntniss Kritiker.' [A good exposition and appreciation. Stallo is shown to anticipate Mach and similar writers in essential points.] **J. W. A. Hickson.** 'Der Kausalbegriff,' etc. (concluded). [Cause and ground. Causality and agency. The concept of action in its relation to time. Occasion. The reciprocity of cause and effect. Physical causality and the teleological interpretation of biological phenomena. The article contains among other interesting matter some good criticism of Bradley. The whole series of articles deserves attention.] **Paul Barth.** 'Zum Gedächtniss des Nicolaus Cusanus.'

PHILOSOPHISCHES JAHRBUCH. Bd. xiv., Heft 2. **F. X. Pfeifer.** 'Gibt es in menschen unbewusste psychische Vorgänge?' [In this article the writer maintains the existence of unconscious mental facts or processes. 'Unconscious' comprises whatever cannot possibly be noticed, and it has a wider scope than 'not attended to'. The twofoldness of things seen is a mental fact, but it cannot be noticed. So is the compound nature of vowels, etc. These are not directly perceived but known by means of other perceptions.] **H. Schell.** 'Das erkenntnistheoretische Problem.' [This paper, answering the question how we get from Seeming to Being, affirms the active character of presentation, and the causative nature of its contents; the first proves the reality of the Ego, the second the reality of what the Ego perceives.] **J. Donat.** 'Zur Frage über den Begriff des Schönen.' [The author concludes by denying that beauty is 'perfection taken as the object of an intellectual tendency'. Its elements are intellectual, but they are the object of love and desire, therefore of the will.] **E. Rolf.** 'Neue Untersuchung über die platonischen Ideen.' [The controversy is continued between the writer and Zeller, the former attempting to explain certain passages in the *Timæus* and the *Republic*, and to prove by others that Plato did not attribute to his Ideas a separate self-existence, but only meant in general to assert the reality of an ideal world.] Bd. xiv., Heft 3. **M. Maier.** 'Die neuen Strahlungen und die physikalische Constitution der Ponderablen Materie.' [This paper, following step by step the latest theories and discoveries as concerns molecule and atoms, concludes that the tendency is towards infinite divisibility of matter, since we find molecules made of atoms, and atoms of *electrons*. He notes the similarity between Lord

Kelvin's vortex-atom theory and that of matter and form.] **H. Sträter.** 'Ein modernes Moralsystem.' [This article is an attack upon Wundt's system of ethics, and firstly in the present number the writer refutes his idea of the Will and of consciousness, of motive and of freedom. Motives do not account for the whole causality of a human act. Character, whether individual or given by the family or by society cannot explain the feeling of freedom. Wundt's determinism destroys all responsibility.] **Ch. Willems.** 'Die obersten Seins- und Denkgesetze,' etc. [This is the first of a series of articles expounding the principles of contradiction, of excluded middle, of sufficient reason, and of causality, according to Aristotle and Aquinas. Here the writer begins by the law of causality, and points out at length how Aquinas understood it, quoting chiefly from his proofs of God's existence.] **G. Gretmann.** 'Nachmals über den Begriff des Schönen.' [The writer answers several objections of Father Jungmann to a preceding article of his in the *Jahrbuch*, and refers at length to Aquinas and Suarez in support of his theory.] **N. von Seeland.** 'Über das Wo der Seele.' [It is a mistake to think that the soul, being immaterial, is nowhere in space. Its functions being, among others, to act on the body, to feel, etc., it is where it acts, i.e., where the body is.]

RIVISTA FILOSOFICA. Anno ii., Vol. iii., Fasc. iii. May-June, 1900. **R. Mariano.** 'Religione e Religioni.' **G. Romano.** 'Gli studi storici in Italia allo stato presente in rapporto alla natura e all' ufficio della Storiografia.' **D. Jaja.** 'L'enigma della coscienza.' **R. Bobba.** 'Appunti bibliografici intorno ad alcune opere contemporanee relative alla Filosofia di Aristotele.' *Rassegna Bibliografica.* Notizie. Sommari delle Riviste Straniere. Libri ricevuti. Fasc. iv., September-October, 1900. **F. Bonatelli.** 'La Psychologie di D. Mercier.' **R. Mariano.** 'Religione e Religione' (Parte IIa, ed ultima). **F. De Sarlo.** 'La metafisica dell' esperienza dell' Hodgson' (Ia parte). **F. Cosentini.** 'La nozione di progresso nella filosofia sociale contemporanea.' *Rassegna Bibliografica,* etc. Anno iii., vol. iv., Fasc. i. January-February, 1901. **A. Faggi.** 'Attraverso la Geometria.' **E. Sacchi.** 'Giacomo Leopardi come uomo, poeta e pensatore.' **A. Franzoni.** 'La morale utilitaria di Stuart Mill esposta dal Prof. G. Zuccante.' **A. Gnesotto.** 'Interesse e disinteresse nei sentimenti ed in particolare nei sentimenti morali.' *Rassegna Bibliografica.* *Rassegna di Psicologia.* *Rassegna di Riviste Straniere.* La morte di Giuseppe Verdi. Pro Philosophia. Notizie e Pubblicazioni. Sommari delle Riviste Straniere. Libri ricevuti. Per le onoranze a Gioberti. Fasc. ii. March-April. **F. Bonatelli.** 'Il Movimento Prammatico.' **A. Franzoni.** 'Vincenzo Gioberti nella Storia della Pedagogia.' **F. Enriques.** 'Sulla spiegazione psicologica dei postulati della Geometria.' **N. Fornelli.** 'Il Fondamento dell' Esperienza nella Pedagogia Herbartiana.' **G. Buonamici.** 'L'Antico e il Moderno nella Filosofia del secolo xx.' Lettera inedita di Vincenzo Gioberti. *Rassegna Bibliografica.* Il Centenario di Vincenzo Gioberti a Torino. Sguardo generale alle Riviste Italiane. Notizie e Pubblicazioni. Sommari delle Riviste Straniere. Libri ricevuti. Fasc. iv. September-October, 1901. **G. Allievo.** 'La Psicologia filosofica di fronte alla Psicologia fenomenistica.' **De Sarlo.** 'Scienza e Coscienza.' *Rassegna Bibliografica,* etc.

VIII.—NOTES.

MIND ASSOCIATION.

THE Annual General Meeting of the Association was held on 2nd November last in Balliol College. It was resolved that the Editor be empowered to engage an assistant at a salary not exceeding £20 per annum and that the General Meeting next year be held in Cambridge. Prof. Bain and Mrs. Sidgwick were elected honorary life-members of the Association. The following is the full list of officers and members :—

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